An Assessment of Montana's Capacity to Respond to a Public Health Emergency: Region 4 Report

Completed for: Montana Department of Public Health and Human Services; Helena, MT

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Executive Summary

Introduction:

The Montana Department of Public Health and Human Services (DPHHS) contracted with the Northwest Center for Public Health Practice (NWCPHP), at the University of Washington, to conduct an assessment of Montana's current capacity to respond to public health emergencies. In cooperation with DPHHS staff, NWCPHP developed an assessment tool using CDC's "Public Health Preparedness and Response Capacity Inventory: A Voluntary Rapid Self-Assessment, Local Version I" (CDC, August 2002) as a template and other survey tools and emergency preparedness documents as a source of additional questions. The University of Montana Technical Assistance Center (UM) provided training and technical assistance to county and tribal public health agencies in Montana in completing the assessment. Fifty (89%) of Montana's 56 counties and three (43%) of Montana's seven reservations completed the assessment (overall response rate, 84%).

Results:

More than half of the public health agencies in Regions 2, 3, 4 and 5, and nearly half of the public health agencies in Region 1, have designated a public health emergency preparedness and response coordinator. Most agencies exchange information, share resources, collaborate with neighboring jurisdictions, and are members of a local emergency preparedness group. Agreements with emergency response partners are primarily informal in nature.

For the most part, public health emergency response plans are in the early stages of development at the local level. One to two agencies in each of Regions 2, 3, 4, and 5 have a completed plan in place, and public health services would be provided by the County Disaster and Emergency Services (DES) or Tribal Emergency Response Commission (TERC) plans in an emergency in nearly half of the agencies in Region 1. The few agencies with a plan in development to manage National Pharmaceutical Stockpile resources are distributed across regions, and two completed plans are in place in Regions 1 and 5. Several public health agencies have responded to a real public health emergency in the past 12 months, but with the exception of agencies in Region 1, few have participated in a tabletop or functional exercise.

Most agencies have a designated epidemiology contact person to coordinate response to disease outbreaks within the community and with the Montana Department of Public Health and Human Services. Most local public health agencies in Montana have established, or are in the process of establishing, a system to receive notifiable disease reports 24 hours a day, seven days a week. Fifty percent or more of the agencies in Regions 2, 3, 4, and 5 assess both the completeness and timeliness of surveillance system reporting, and assess and address barriers to reporting. Most agencies have access to the information needed for day-to-day epidemiologic surveillance and response; but few have information on the CDC-defined "critical agents," and the exercising of legal authorities in a public health emergency. In general, disease and outbreak investigation protocols and post-event evaluations are unwritten, informal activities in Montana's local public health agencies, and protocols to enhance surveillance when necessary are in the early stages of development.

There are Level A labs in each region, however only half of the public health agencies report having access to a Level A lab in their jurisdiction or close to their jurisdiction. There are few microbiology labs statewide; however there is at least one microbiology lab in every region. Few of the microbiology labs can rule out the presence of anthrax, brucellosis, tularemia, and plague. Region 3 can only rule out anthrax. Almost all public health agencies in all regions know they can contact the state laboratory if their local lab cannot provide the level of service that they need. About half of public health agencies within the regions engage in activities to build relationships with their Level A labs. Most agencies (35 out of 53 responses) have a key contact in law enforcement to whom they can communicate lab results. Areas needing attention throughout all regions are the creation of protocols and formalized agreements between public health agencies and local labs and other community partners to: a) assure access to laboratories, b) timely and accurate reporting, c) proper handling of specimens, and d) proper communication of results.

Most agencies in Regions 3, 4, and 5 have a health alert system, although few of these currently operate 24 hours a day, seven days a week. High speed Internet connectivity is present to some extent in most jurisdictions and is completely absent in only 15 counties, representing nearly half of the agencies in Regions 1, 2, and 4. Most agencies have initiated the transition of programs to electronic data and messaging systems and have redundant communication with e-mail, primarily in the form of fax machines. Few agencies, however, have formally tested the ability to reach response partners using these communication systems. The percent of staff members proficient in computer software applications varies widely (0-100% of staff per application, per responding agency); therefore training should be targeted to the particular needs of each agency.

Most public health agencies within the regions have access to a public information officer. Throughout the regions there are few emergency contact directories and contact lists, an emergency response/crisis communication plan, or emergency communication protocols. Public health agencies throughout the regions primarily disseminate information about public health issues through media channels (such as print or TV) and letters. Regions 3 and 5 also disseminate information through town hall meetings and e-mail list-serves. The most common informational materials produced in the regions are for smallpox (Regions 1 and 3) and anthrax (Regions 2, 4, and 5). Most agencies in all regions have some pre-crisis topic specific informational materials on reportable conditions. Most public health agencies within the regions still need to access informational materials on critical biological agents, chemical agents, and other public health threats.

The capacity of Montana public health agencies within the regions to train and educate staff is mixed. The number of staff in local public health agencies is generally small and there are many barriers to obtaining education. Despite these barriers, agencies report a great deal of support for employee education, including incentives for in-person and distance learning (in Regions 3 and 5 in particular). Most public health agencies region-wide train their own staff or participate in training with state public health agencies, LEPCs, or TERCs. Most of the agencies in Region 1, 3, 5 collaborate with other agencies in the area to provide distance learning. Almost all public health agencies have access to some distance learning technologies although 24/7 satellite access needs to be developed in all regions. Barriers to distance learning mentioned by all regions

included lack of time for staff to devote to distance learning, slow internet connectivity, and lack of satellite receivers. Trainings needed by the regions are:

- Specific procedures to follow during biological and chemical incidents (all Regions).
- Basic education regarding biological and chemical incidents (Region 2, 3, 4, 5).
- How to identify and recognize a terrorist act (Region 1, 2, 3).
- Incident Command/ Unified Command (Region 2, 3, 5).
- Surveillance (Region 2).
- Infections/syndromes related to critical agent list (Region 4).
- Risk communication and working with the media (Region 5).
- How the public health system works in your state (Region 3).

Few agencies within the regions conduct an internal training needs assessment or evaluate the trainings they offer.

Summary:

The results of this assessment of Montana's capacity to respond to a public health emergency highlight several strengths and areas for increased development. Overall recommendations for the state in meeting critical capacities do not differ when viewing data at the regional level. Actions to consider include expanding and formalizing collaborative relationships with public health emergency response partners, providing training in the response to a public health emergency, and developing local and regional emergency response plans. Basic public health systems create a foundation upon which more sophisticated systems are developed. Recommended next steps that relate to every-day public health should be initiated prior to those related to bioterrorism and other public health emergencies. Public health officials at the state, local, and regional levels are encouraged to assess the resources of their agency and region as they determine the priorities for action and next steps for addressing critical capacity needs.

Introduction

In February of 2002, the Centers for Disease Control and Prevention (CDC) announced the availability of fiscal year (FY) 2002 funds for the cooperative agreement program to upgrade state and local public health jurisdictions' preparedness for and response to bioterrorism, other outbreaks of infectious disease, and other public health threats and emergencies (Announcement Number 99051—Emergency Supplemental). States applying for these funds were able to request support for activities under several "focus areas":

- Focus Area A: Preparedness planning and readiness assessment
- Focus Area B: Surveillance and epidemiology capacity
- Focus Area C: Laboratory capacity – biological agents
- Focus Area E: Health alert network/communications and information technology
- Focus Area F: Health risk communication and health information dissemination
- Focus Area G: Education and training

Montana applied and received funding in the amount of $7,008,529 for preparedness of its public health system. Recognizing that the effect of any event will be experienced at the local level, the Montana Department of Health and Human Services (DPHHS) decided that a majority of this funding would be provided either directly to local health departments in Montana or in direct support of local efforts. DPHHS contracted with the Northwest Center for Public Health Practice (NWCPHP), at the University of Washington, to conduct an assessment of Montana's current capacity to respond to public health emergencies. The results of that assessment are presented here.

Methods

Tool Development

The Northwest Center for Public Health Practice (NWCPHP) reviewed the tools, methods, and results of previous assessments of Montana's public health system emergency preparedness and response capacities, interviewed key contacts in each CDC-identified "focus area," and identified gaps in data needed to describe, improve, and continuously assess and evaluate those preparedness and response capacities. NWCPHP drafted an assessment tool using CDC's "Public Health Preparedness and Response Capacity Inventory: A Voluntary Rapid Self-Assessment, Local Version I" (CDC, August 2002) as a template. NWCPHP's draft assessment tool incorporated the results of the review of previous Montana assessments and included additional questions from several other documents and survey instruments pertaining to public health emergency preparedness and response. A list of the previous assessments and other survey instruments reviewed is included in the attached assessment tool, Appendix A. Multiple drafts of the assessment tool were reviewed by DPHHS staff, as well as other experts, for their feedback.

Tool Implementation

NWCPHP conducted training on the design and completion of the assessment tool in Montana for the University of Montana Technical Assistance Center (UM) on October 31, 2002. UM trained representatives from the county and tribal public health agencies in Montana and distributed the assessment tool during November 2002. All counties and reservations in Montana were given 12 weeks to complete the assessment. The deadline for returning completed surveys to the Montana Department of Public Health and Human Services was January 15, 2003, however completed surveys were received, and results included in this report, through February 7, 2003.

Data Analysis

Data were analyzed with SPSS version 11.5 for Windows and described as counts, frequencies, and means. Partner organizations with whom public health agencies had agreements for emergency response (Focus Area A), health alert receipt and distribution (Focus Area E) and emergency response plan components (Focus Area A) were each grouped into eight categories to simplify the presentation of results. Appendix B contains a detailed description of the eight categories. Comments and responses to "fill-in-the-blank" or open-ended questions were entered into a Microsoft® Access database and analyzed qualitatively.

NWCPHP created reports for three levels of analysis: statewide (aggregate), regional, and jurisdictional (county/reservation). This report contains results of the regional analysis. Reports are also available for the statewide and jurisdictional analyses. Experience suggests that Montana counties with a large population often have more resources (e.g., budget, equipment, persons employed) than counties with a small population. Therefore, data in the statewide analysis were stratified by county population size (>20,000 persons, 10,000-20,000 persons, <10,000 persons). Data from reservations were included in the overall counts (i.e., the "all" column of tables in the statewide analysis), but were not presented separately, due to the limited

response rate and potential confidentiality issues. Five regions were created by Montana state and local public health agencies for preparation of regional response plans. Counties and reservations not included in this report are noted in the state and appropriate regional reports.

Most of the completed assessments contained some missing data - not an uncommon finding in an assessment of this length. There are many possible reasons why a question may not be answered by a respondent – the respondent may not have understood the question, the question may have been overlooked, or the question may not have applied to that particular respondent. Because NWCPHP analysts could not determine the reason questions were unanswered without additional information, all unanswered questions were treated as missing data. The number of counties and reservations responding to each of the questions is indicated in each table (i.e., n=). When the number of missing responses varies by item in a table, this is noted in the table footnotes.

Some questions instructed respondents to "check only one" response item but some respondents checked multiple items. These questions most commonly asked respondents to indicate to whom the local health officer reports, describe the communication among members of the local emergency preparedness group, and indicate the form (i.e., paper or electronic) of agency personnel and emergency partner contact information. In these cases, only the first or highest ranking answer selected was recorded.

Interpreting Results

Given the scope and complexity of this assessment, it is important to understand how to interpret the results. Population strata were selected to be consistent with previous Montana assessments, resulting in an uneven distribution of counties in the different population stratifications. There were 33 counties included in the "counties < 10,000" population strata, eight in the "counties 10,000-20,000" strata, and nine counties included in the "counties > 20,000" strata. Because of the uneven distribution, acknowledging differences is appropriate, but comparisons between the strata (e.g., counties in one strata are more/less prepared than counties in another strata) are not valid. Most completed assessments contained missing data; therefore it is important to pay attention to the number responding when evaluating the importance of particular results.

Strengths and actions to consider are presented based on the results reported by responding agencies; however, the resources of specific agencies and regions should also be taken into consideration when determining priority actions and the most appropriate means of addressing next steps. In many cases, it may be most appropriate to address capacities on a regional level. For example, agencies with a very small staff may agree to share a public health emergency preparedness and response coordinator or other job title with a neighboring agency, and collaborate with other agencies in response efforts.

Survey Limitations

Ideally, a survey of this length is tested on a small subset of respondents before administering it to the entire group of respondents ("pilot testing"), in order to identify any confusing or difficult questions. Sections of this survey were reviewed for overall content and structure by local public health workers and members of the Bioterrorism Advisory Council. Deadlines associated with the grant funding for this project, however, did not allow sufficient time for a complete "pilot test" of the assessment tool. As a result, respondents may have interpreted some questions differently than was intended by the NWCPHP consultants who developed the survey. When results appear inconsistent with what is known from actual experience at the state, regional or local levels, public health officials are encouraged to seek out additional information.

Respondents answered questions regarding full-time equivalent staffing (FTEs) inconsistently. Results for Table E.9 (information technology expertise available) are therefore reported in terms of counts (i.e., agencies with access to the listed expertise) instead of average FTEs. In other cases, when there was a question about the exact number of FTEs entered for a particular question, the smallest of the possible answers was used. Data may therefore err on the side of under-reporting available FTEs.

Results

Respondents and Non-respondents

Fifty (89%) of Montana's 56 counties and three (43%) of Montana's seven reservations completed the assessment (overall response rate, 84%). The counties and reservations responding are described in the "Demographics and Personnel" section of this report. Counties not completing the assessment included four with a population less than 10,000 and two with a population between 10,000 and 20,000. The counties and reservations not responding were distributed among Montana's five emergency preparedness and response regions [two in Region 1 (89% response rate), three in Region 2 (77% response rate), one in Region 3 (92% response rate), two in Region 4 (83% response rate), and two in Region 5 (75% response rate)]. The specific counties and reservations not responding are indicated by footnotes in Table 1 of the statewide report and the appropriate regional report.

Demographics and Personnel

Table 1 Description of Regions* for Public Health Emergency Response in Montana

Region	Counties and Tribes Included
1	Carter, Custer, Daniels, Dawson, Fallon, Garfield, McCone, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Treasure, Valley, Wibaux, Fort Peck Reservation, Northern Cheyenne Reservation
2	Blaine, Cascade, Chouteau, Glacier, Hill, Liberty, Phillips, Pondera, Teton, Toole, Blackfeet Reservation, Fort Belknap Reservation, Rocky Boy's Reservation
3	Big Horn, Carbon, Fergus, Golden Valley, Judith Basin, Musselshell, Petroleum, Stillwater, Sweet Grass, Wheatland, Yellowstone, Crow Reservation
4	Beaverhead, Broadwater, Deer Lodge, Gallatin, Granite, Jefferson, Lewis & Clark, Madison, Meagher, Park, Powell, Silver Bow
5	Flathead County, Lake, Lincoln, Mineral, Missoula, Ravalli, Sanders, Flathead Reservation

*Data not available for the Fort Peck and Northern Cheyenne Reservations (Region 1), Liberty, Phillips and Pondera counties (Region 2), the Crow Reservation (Region 3), Granite and Jefferson counties (Region 4), Lincoln county and the Flathead Reservation (Region 5)

Each of the regions described in Table 1 share borders with a neighboring state and/or Canada.
- Three of the counties and tribes included in Region 1 border Canada, five border neighboring states, and one borders both Canada and a neighboring state.
- Seven of the counties and tribes included in Region 2 border Canada.
- Three of the counties and tribes in Region 3 border neighboring states.
- Four of the counties and tribes included in Region 4 border neighboring states.
- Two of the counties and tribes in Region 5 border Canada, and three border neighboring states, and one borders both Canada and a neighboring state.

Table 2 Characteristics of Public Health Agencies in Montana Emergency Response Regions

	Region 1 n=18	Region 2 n=13	Region 3 n=12	Region 4 n=12	Region 5 n=8
Mean agency population	5,081	12,607	16,066	18,808	37,971
Agency budget*†					
Range	$3,120–$517,000	$0–$4,500,000	$52,589–$325,000	$16,730–$4,318,988	$111,865–$7,700,000
Mean (average)	$144,427	$644,593	$154,335	$994,670	$2,053,958
Staff: full-time equivalents*†					
Range	0–13.2	0–66.2	1.0–9.8	0.8–65.0	2.0–90.0
Mean (average)	3.4	11.1	4.0	12.0	24.6

*Data not available for the Fort Peck and Northern Cheyenne Reservations (Region 1), Liberty, Phillips and Pondera counties (Region 2), the Crow Reservation (Region 3), Granite and Jefferson counties (Region 4), Lincoln county and the Flathead Reservation (Region 5)
†48 to 49 responding, total Regions 1-5

The local health officer is full-time in one agency each of Regions 1, 2, and 3 and in three agencies each of Regions 4 and 5. The local health officer is shared in two of the public health agencies in Region 1 and one agency in Region 2.

A designated public health emergency preparedness and response coordinator is present in the following:

- Seven of 16 agencies in Region 1,
- Six of 10 agencies in Region 2,
- Ten of 11 agencies in Region 3,
- Eight of 10 agencies in Region 4, and
- Five of six agencies in Region 5.

Focus Area A: Preparedness Planning and Readiness Assessment

Table A.1 Community Health Planning – Level of Development in
Montana Counties and Tribes (counts [%])

	Community Health Planning (public health agencies in each stage of development)						
	Stage of development	Region 1 n=15	Region 2 n=8	Region 3 n=9	Region 4 n=9	Region 5 n=6	All* n=48
Identifying community partners and stakeholders	Moderate/extensive	7	4	2	7	5	25 (52%)
	Early/None	8	8	7	2	1	23 (48%)
Engaging community partners and stakeholders	Moderate/extensive	6	3	2	6	5	22 (46%)
	Early/None	5	5	7	5	1	26 (54%)
Hazard analysis/risk assessment†	Moderate/extensive	2	2	2	2	2	10 (22%)
	Early/None	13	5	7	7	2	35 (78%)
Using data to identify health problems and gaps†	Moderate/extensive	4	4	2	6	3	19 (40%)
	Early/None	10	4	7	3	3	28 (60%)
Prioritizing health problems and gaps†	Moderate/extensive	3	4	2	3	3	15 (32%)
	Early/None	11	4	7	6	3	32 (68%)
Setting improvement goals	Moderate/extensive	1	3	2	5	3	14 (30%)
	Early/None	13	5	7	4	3	33 (70%)
Formulating a plan with action steps to meet goals†	Moderate/extensive	1	1	2	4	3	11 (23%)
	Early/None	13	7	7	5	3	36 (77%)
Allocating funding based on plan priorities†	Moderate/extensive	1	1	2	4	3	11 (23%)
	Early/None	13	7	7	5	3	36 (77%)
Disseminating plan among stakeholders/community partners†	Moderate/extensive	0	1	2	2	3	8 (17%)
	Early/None	14	7	7	7	3	39 (83%)
Evaluating effectiveness of action steps†	Moderate/extensive	1	1	2	2	3	9 (20%)
	Early/None	13	6	7	7	3	37 (80%)
Recommending changes to action steps that prove ineffective †	Moderate/extensive	0	1	2	0	3	6 (13%)
	Early/None	14	6	7	9	3	40 (87%)
Establishing frequency of plan review and updating†	Moderate/extensive	2	2	2	2	1	9 (20%)
	Early/None	12	5	7	7	4	36 (80%)

*All counties and reservations responding
†45 to 47 responding

Table A.2 Public Health Emergency Preparedness Planning – Level of Development in Montana Counties and Tribes (counts [%])

	Public Health Emergency Preparedness Planning (public health agencies in each stage of development)					
	Stage of development	Region 1	Region 2	Region 3	Region 4	Region 5	All*
		n=16	n=10	n=11	n=10	n=6	n=53
Identifying community partners and stakeholders	Moderate/extensive	6	5	3	6	4	24 (45%)
	Early/None	10	5	5	4	2	29 (55%)
Engaging community partners and stakeholders	Moderate/extensive	6	3	3	2	3	17 (32%)
	Early/None	10	7	8	8	3	36 (68%)
Hazard analysis/risk assessment*	Moderate/extensive	4	1	2	3	1	11 (21%)
	Early/None	11	9	9	7	5	41 (79%)
Using data to identify health problems and gaps*	Moderate/extensive	2	2	2	2	1	9 (17%)
	Early/None	13	8	9	8	5	43 (83%)
Prioritizing health problems and gaps*	Moderate/extensive	2	2	2	2	0	8 (15%)
	Early/None	13	8	9	8	6	44 (85%)
Setting improvement goals*	Moderate/extensive	0	1	2	1	0	4 (8%)
	Early/None	15	9	9	9	6	48 (92%)
Formulating a plan with action steps to meet goals*	Moderate/extensive	0	0	1	2	0	3 (6%)
	Early/None	15	10	10	8	6	49 (94%)
Allocating funding based on plan priorities*	Moderate/extensive	0	0	1	3	0	4 (8%)
	Early/None	15	10	10	7	6	48 (92%)
Disseminating plan among stakeholders/community partners*	Moderate/extensive	0	0	1	2	0	3 (6%)
	Early/None	15	10	10	8	6	49 (94%)
Evaluating effectiveness of action steps*	Moderate/extensive	0	0	1	2	0	3 (6%)
	Early/None	15	10	10	8	6	49 (94%)
Recommending changes to action steps that prove ineffective*	Moderate/extensive	0	0	0	1	0	1 (2%)
	Early/None	15	10	11	9	6	51 (98%)
Establishing frequency of plan review and updating*	Moderate/extensive	2	1	0	2	0	5 (10%)
	Early/None	13	9	11	8	6	47 (90%)

*52 responding

Table A.3 Public Health Partner Relationships for Emergency Response in Region 4 (counts)

Organization Groupings (number of agencies in grouping)	Formal Written Agreements		Informal, Unwritten Agreements	
	Agencies with at least one agreement* n=10	Number of agreements, range	Agencies with at least one agreement* n=10	Number of agreements, range
Government/legal (5)	4	1-3	10	1-4
Emergency response (5)	3	4-5	8	1-5
Medical/lab/health (20)	4	2-5	10	1-11
Law enforcement/safety (4)	3	1-3	10	1-4
Environmental (3)	4	1-3	6	1-3
Other community (7)	3	1-5	10	1-6
Neighboring jurisdictions (1)	0	0	8	1†
Foreign borders and neighboring states (1)	0	0	1	1†

*Number of county and tribal public health agencies with at least one agreement with an organization in the particular grouping
†Number of jurisdictions/borders/states not specified

The following agencies have identified legal counsel who will be available during emergencies to advise the agency on legal matters pertaining to public health:

- Thirteen of 16 agencies in Region 1,
- Seven of 10 agencies in Region 2,
- Ten of 11 agencies in Region 3,
- Eight of 10 agencies in Region 4, and
- Five of six agencies in Region 5.

**Table A.4 Emergency Contact Information in Montana
Local Public Health Agencies (counts)**

	Region 1 n=16	Region 2 n=9	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=52
Directories with emergency contact information						
Paper	13	3	10	6	6	38
Electronic	0	1	0	1	0	2
None	3	5	1	3	0	12
Update contact lists*						
Annually	3	0	1	1	0	5
As-needed	9	5	8	5	5	32
Other†	1	0	1	1	0	3
Test ability to reach key agency personnel frequently‡§						
Local health officer	4	1	7	3	2	17
Lead local public health official	4	1	2	2	2	11
Agency epidemiology contact person	2	0	6	0	2	10
Local public health emergency preparedness and response coordinator	4	1	3	2	1	11
State medical officer	1	0	6	1	2	10
State epidemiologist	1	0	6	1	2	10
State public health lab director	1	0	6	1	2	10

*44 responding
†includes one monthly (Region 3) and two currently in development (Regions 1 and 4)
‡Frequently defined as at least every 6 months; acknowledgement by contact within 30 minutes; during business hours, after regular business hours, or both
§ Fewer than 42 responding

Human Resources

- One public health agency in Region 1 and two in Region 4 have emergency staffing plans.
- One agency in each of Regions 1, 3, 4, and 5 have written job descriptions that define knowledge, skills, and abilities needed in response to a public health emergency.

Forty-two agencies regularly review the licenses of regulated professionals to assure their compliance with the state or federal policy guidelines. These 42 agencies include:

- Ten of 16 agencies in Region 1,
- Eight of 10 agencies in Region 2,
- Nine of 10 agencies in Region 3,
- Nine of 10 agencies in Region 4, and
- All six agencies in Region 5.

The review process is documented in written policy or procedures in nine agencies in Region 3, four agencies in Region 4, and two agencies in each of Regions 1, 2, and 5.

Emergency Response Planning

Table A.5 Participation by Montana Public Health Agencies in
Local Emergency Preparedness Groups (counts [%])

Status of membership in a local emergency planning group*	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Member < 6 months	6	2	4	1	1	14 (26%)
Member 6-12 months	2	3	1	2	2	10 (19%)
Member > 1 year	4	3	4	6	3	20 (38%)
Plan to join an established group w/in 3 months	1	1	0	0	0	2 (4%)
Plan to initiate a group	1	1	0	1	0	3 (6%)

*49 responding

Three agencies in Region 2 and one agency in each of Regions 1, 3, and 5 are the lead agency for a local emergency preparedness group. Two agencies in each of Regions 1 and 3 did not indicate whether they had plans for joining a group in the future.

**Table A.6 Status of Public Health Emergency Response Plans
in Montana Counties and Tribes** (counts [%])

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Stage of development						
Complete	0	1	1	2	2	6 (11%)
>49% complete	2	1	0	3	0	4 (8%)
5-49% complete	2*	1	0	1	0	6 (11%)
Addressed in DES/TERC plan	7	4	1	3	1	16 (30%)
No plans	4	3	9	1	3	20 (38%)

*Percent complete not indicated for one agency (county <10,000)

One agency in each of Regions 1 and 5 has developed a plan for managing National Pharmaceutical Stockpile (NPS) resources. Four agencies in Region 1, one in Region 3, and three in Region 4 have an NPS plan in development that is not complete.

**Table A.7 Public Health Emergency Response Plan Evaluation
in Montana Counties and Tribes** (counts [%])

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Most recent testing and evaluation*						
Within past 12 months	2	0	1	3	1	7 (14%)
>12 months ago	1	0	0	0	0	1 (2%)
Have not been tested	12	10	8	7	5	42 (84%)
Types of evaluation (within the past 12 months)						
Tabletop	4	0	2	2	1	9 (17%)
Functional exercise	7	2	1	0	0	10 (19%)
Regional exercise	0	2	6	1	1	10 (19%)
Real event	5	1	9	3	4	22 (42%)

*50 responding

Two agencies in each of Regions 1 and 4, and one agency in each of Regions 2, 3, 5 have corrected deficiencies in the plan based on knowledge gained through evaluations.
The following agencies have convened jointly, at least once, with community response partners to update the plan, even if no exercise or emergency occurred to warrant a more frequent review:

- Six of 16 agencies in Region 1,
- Five of 10 agencies in Region 2,
- One of 11 agencies in Region 3,
- Six of 10 agencies in Region 4, and
- Four of six agencies in Region 5.

Assessment of Preparedness Planning and Readiness Assessment (Focus Area A) in Region 4:

Strengths:

- More than half of the public health agencies in Region 4 (8 of 10) have designated a public health emergency preparedness and response coordinator.
- Most Region 4 agencies (6 of 10) have directories with emergency contact information in paper form, and update these on an as-needed basis. One agency's directory is in electronic form.
- Collaboration and coordination with response partners.
  Most Region 4 agencies (9 of 10) are members of a local emergency preparedness group. Agreements with emergency response partners are primarily informal in nature. More than half of Region 4 agencies have identified (7) and engaged (6) stakeholders for the purpose of community health planning, and have identified stakeholders for public health emergency preparedness planning (6).
- Most Region 4 agencies (9 of 10) have begun the process of public health emergency preparedness planning.

Actions to Consider:

- Formalize agreements with emergency response partners.
  Although many agencies have established relationships with partner organizations and have informal agreements for collaborating in a public health emergency, formalizing these agreements will ensure a more effective and efficient response. Written agreements are particularly important when the response includes multiple agencies, or when illness or increased needs require staff to take on responsibilities not typically included in their day-to-day work. Other U.S. states bordering jurisdictions in Region 4 should be included among the organizations with which agreements are developed.

- Establish a system to ensure up-to-date emergency contact information.
  As the number of agreements with partner agencies increases, it may be more difficult to determine when directories with emergency contact information need updating. Hence, a regular schedule for updating this information is preferable to updating on an as-needed basis. In addition to maintaining the schedule, regularly testing the contact list for accuracy and responsiveness ensures the ability to reach key people via the contact information listed in the directory.

- Develop jurisdiction-specific and regional emergency response plans.
  Public health agencies can use their current collaborative relationships with neighboring jurisdictions and membership in local emergency preparedness groups to help facilitate the development of public health emergency preparedness and response plans (including emergency staffing and National Pharmaceutical Stockpile plans). In smaller counties, it may be most appropriate to pool resources and plan for emergency response at the regional level.

- Implement emergency response training and exercises.
  A final "next step" involves staff training and skill development in emergency response through exercises (community-based or regional).

Focus Area B: Surveillance and Epidemiology Capacity

**Table B.1 - Job Responsibilities of the Epidemiology Contact Person
in Montana Local Public Health Agencies (counts [%])**

Job responsibilities (number of agencies whose epidemiology contact person has each responsibility)	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=9	Region 5 n=6	All* n=52
Coordinates disease investigation with other public health system partners in local/regional emergency response planning	10	7	2	6	6	31 (60%)
Coordinates with hospitals and/or infection control practitioners to facilitate hospital readiness	7	5	2	6	5	25 (48%)
Responds 24 hours per day/7 days per week to immediately notifiable condition reports or other urgent public health reports	3	3	1	5	3	15 (29%)
Leads and conducts epidemiologic investigations	5	5	9	5	6	30 (58%)
Analyzes and interprets data	1	4	8	5	4	22 (42%)
Designs epidemiologic studies	0	1	1	2	2	6 (12%)
No designated epidemiology contact person	6	3	2	1	0	12 (23%)

*All counties and reservations responding

Table B.2 Staff Availability in Montana Regions
for Epidemiology Response, by Function (full time equivalents)

Staff with functional skills available internally [mean (range) full-time equivalents available] n=15	Region 1 n=15	Region 2 n=8	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=49
Investigate disease case reports and outbreaks*	1.1 (0.03-3.5)	1.5 (0.1-6.0)	0.8 (0.2-2.1)	3.9 (0.2-17.9)	2.9 (0.3-7.5)	1.9 (0.03-17.9)
Analyze and interpret data from outbreak investigations†	1.0 (0.03-3.5)	0.9 (0.1-2.0)	0.7 (0-1.5)	4.8 (0.2-17.9)	1.8 (0.3-3.5)	1.7 (0.03-17.9)
Provide immunizations and dispense antibiotics	1.8 (0-8.0)	2.5 (0.1-10.0)	1.4 (0.5-4.0)	2.9 (0.2-11.5)	3.3 (0.5-7.5)	2.2 (0.05-11.5)
Investigate environmental health problems†	0.6 (0-1.8)	0.9 (0.1-2.0)	1.0 (0.4-4.0)	2.9 (0.2-8.0)	5.3 (1.0-10.0)	1.8 (0.05-10.0)
Investigate suspected workplace or work-related illness†	0.8 (0-2.6)	1.1 (0.1-2.0)	1.1 (0.2-6.0)	4.9 (0.2-17.9)	3.0 (1.0-5.8)	1.9 (0.03-17.9)

*47 responding
†38 to 40 responding

Table B.3 Public Health Surge Capacity Plans and Resources (counts [%])

Number of agencies with plan/access	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Plans to accommodate public health surge capacity						
Identification of individuals with skills in data analysis and interpretation	4	4	2	4	2	16 (30%)
Identification of agency staff and staff of public health partners throughout the state who have been trained in non-analytical roles	5	4	10	3	1	23 (43%)
Access to personnel from outside agencies for routine duty or 24 hours/7 days per week emergency duty						
Epidemiologists Routine Emergency	3 1	1 5	0 2	1 9	2 1	7 (13%) 18 (34%)
Environmental health scientists Routine Emergency	2 0	1 3	5 3	1 5	2 0	11 (21%) 11 (21%)
Registered sanitarians Routine Emergency	5 2	2 2	7 2	3 2	2 2	19 (36%) 10 (19%)
Registered nurses/public health nurses Routine Emergency	2 1	2 1	7 1	0 1	1 1	12 (23%) 5 (9%)
Infection control practitioners Routine Emergency	4 3	4 2	1 1	4 3	3 0	16 (30%) 9 (17%)
Primary care and public health physicians Routine Emergency	5 8	2 5	9 2	1 7	2 1	19 (36%) 23 (43%)
Veterinarians Routine Emergency	6 6	5 4	9 0	6 3	3 0	29 (55%) 13 (25%)

Epidemiologists are employed in Regions 3 and 5.

In addition to the personnel listed in Table B.5, agencies have access to the following:

- Industrial hygienists (two agencies in Region 1, three in Region 2, one each in Regions 4 and 5 for routine duty, and one agency in Region 4 for emergency duty).
- Occupational health specialists (two agencies in Region 1, three in Region 2, one each in Regions 3, 4, and 5 for routine duty, and one in Region 2 and two in Region 4 for emergency duty).

Table B.4 Partner Relationships for Surveillance and Epidemiologic Response in Montana Counties and Tribes (counts [%])

Activities	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Number of public health agencies arranging training for health care providers on:						
Infections/syndromes related to the critical agents list	4	4	0	4	2	14 (26%)
Epidemiology	3	3	0	1	1	8 (15%)
Surveillance	4	3	0	3	2	12 (23%)
Interpretation of clinical and lab findings	1	1	0	2	1	5 (9%)
Disease reporting requirements	8	5	2	5	4	24 (45%)
Number of public health agencies attempting to strengthen relationships with reporting sources by:						
Assessing and addressing barriers to reporting	7	6	11	6	6	36 (68%)
Dedicating staff time to educating reporting sources	10	3	9	8	5	35 (66%)
Dedicating staff time to providing regular information to reporting sources	6	3	3	2	4	18 (34%)
Other activities	6	3	7	4	4	24 (45%)
Number of public health agencies attempting to strengthen relationships with veterinarians and animal control by:						
Including local veterinarians in bioterrorism and preparedness response planning	4	2	6	3	3	18 (34%)
Including local veterinarians in education/training on the critical agents and zoonotic diseases	3	3	0	0	1	7 (13%)
Other activities	4	4	2	5	4	19 (36%)

**Table B.5 Surveillance and Epidemiology Response Plans and Protocols in
Montana Counties and Tribes** (counts)

Protocol Type [Number of agencies with protocol in place]	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Disease/threat/incident investigation*						
Communicable disease outbreaks	8	1	3	4	2	18
Environmental health hazards	3	0	2	1	2	8
Chemical threats	3	1	1	0	1	6
Biological agent threats	3	0	1	2	1	7
Radiological threats	2	1	1	0	0	4
Large-scale natural disasters	3	1	1	3	1	9
Possible terrorist incidents	4	1	1	1	0	7
Enhancing surveillance						
Active surveillance for						
Notifiable Diseases	8	6	9	4	5	32
Category A agents	3	3	8	3	3	20
Event-related Injuries	1	1	2	2	2	8
Expanding reporting sources to include:						
911 dispatch calls	7	2	0	2	2	13
Schools	4	1	5	2	4	16
Child daycare centers	2	0	5	2	3	12
Long-term-care facilities	3	0	4	2	2	11
Veterinarians/animal control	3	1	3	1	2	10
Collecting data on illness patterns with suspicious epidemiologic features*	6	2	2	3	4	17
Collecting and analyzing syndromic data†						
Meningitis/encephalitis	4	3	2	6	4	19
Vesicular/pustular rash	4	3	2	4	3	16
Localized cutaneous lesion	4	3	2	4	3	16

*51 to 52 responding
†Meningitis, encephalitis or unexplained acute encephalopathy/delirium; vesicular or pustular rash, localized cutaneous lesion with at least one of these: pruritic maculopapular rash, acute ulcer, eschar

Table B.6 Availability of Decision-Making Informational Resources in Montana Counties and Tribes (counts [%])

Resources [Number of agencies with listed resource]	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Risk and vulnerability assessments						
Food	10	6	10	5	5	37 (70%)
Water	8	6	10	7	5	36 (68%)
Air	8	2	8	3	3	18 (34%)
Disease investigation and response						
Specific roles and responsibilities of agency staff	7	5	3	5	3	23 (43%)
Disease-specific information	12	6	3	7	5	33 (62%)
Clinical management of cases	6	5	1	4	4	20 (38%)
Reporting requirements	13	7	9	7	6	42 (79%)
Procedures for identifying additional cases	5	5	9	4	6	29 (55%)
Coordination with environmental health protocols and procedures	3	3	2	3	4	15 (28%)
Triggers to determine when to notify other public health system partners	3	4	3	5	3	18 (34%)
Exercising of legal authorities	3	3	2	5	3	16 (30%)
Coordination of activities with law enforcement	5	4	3	5	3	20 (38%)
Contact tracing	5	5	8	6	4	28 (53%)
Contact treatment or prophylaxis	6	5	7	6	5	29 (55%)
Collection and handling of laboratory specimens	5	4	7	5	5	26 (49%)
Case investigation forms	8	5	4	6	4	27 (51%)
Pre-prepared medical management information on the critical agents	1	3	1	2	1	8 (15%)

**Table B.7 Disease and Illness Data Collection in Montana
Counties and Tribes (counts [%])**

Case/report data [number of agencies collecting]	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Influenza	13	8	11	8	6	46 (87%)
Invasive bacterial disease	8	8	10	9	5	40 (75%)
Vaccine preventable diseases	13	9	11	10	6	49 (92%)
Vector-borne diseases	10	7	11	9	6	43 (81%)
Food-borne diseases	12	8	11	9	6	46 (87%)
Water-borne diseases	12	8	11	9	5	45 (85%)
Category A agents	7	3	10	8	5	33 (62%)
Vaccine registry	15	10	11	10	6	52 (98%)
Hazardous substance emergency exposures	3	3	5	2	3	16 (30%)
Hazardous substance events	3	4	10	3	3	23 (43%)

Most public health agencies store data in paper form. The following data is stored in electronic form in each of Montana's five regions:

- Region 1: Vaccine-preventable diseases (one agency) and vaccine registry (12 agencies),
- Region 2: Vaccine registry (eight agencies),
- Region 3: Food- and water-borne diseases (one agency), vaccine registry (six agencies), and hazardous substance emergency events (two agencies),
- Region 4: Invasive bacterial disease (one agency), vaccine-preventable diseases (one agency), vector-, food- and water-borne diseases (two agencies), Category A list agents of bioterrorism (one agency), and vaccine registry (eight agencies), and
- Region 5: Invasive bacterial disease (one agency), vaccine-preventable diseases (one agency), vector-borne diseases (one agency), and vaccine registry (four agencies).

Two or fewer agencies in each region do not store data before forwarding it to the state.

Table B.8 Communications Capacity for Disease Notification and Management in Montana Counties and Tribes (counts [%])

Number of agencies with listed provision/ability	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Receipt and Evaluation of Immediately Notifiable Conditions Reports						
After hours emergency phone number	6	3	2	5	2	18 (34%)
Designated 24/7 contact person	2	2	0	4	4	12 (23%)
State receives and evaluates reports	2	3	1	3	0	9 (17%)
Plans in development stage	6	3	7	4	2	22 (42%)
Agency does not receive reports	7	2	2	1	0	12 (23%)
Dissemination of critical agent medical management information w/in one hour of event to local partners						
Ambulatory care facilities	9	8	2	7	2	28 (53%)
Police department	10	8	2	8	2	30 (57%)
Fire department	10	5	1	6	2	24 (45%)
Emergency medical services	10	8	2	6	2	28 (53%)
Hospitals	8	7	2	7	2	26 (49%)

Table B.9 Epidemiologic Response Plan Evaluation and Surveillance System Assessment in Montana Counties and Tribes (counts [%])

Number of agencies participating in listed activity	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Post-event evaluation of response to outbreak or event*						
Formal, written	0	1	0	1	1	3 (6%)
Informal	5	5	9	●	●	29 (55%)
No evaluation	10	1	2	●	0	19 (36%)
Surveillance system assessment						
Completeness	6	6	9	5	3	29 (55%)
Timeliness	5	6	9	5	5	30 (57%)
Accuracy	5	5	9	5	4	28 (53%)
Participation	6	3	2	4	5	20 (38%)
Ease of use	4	2	7	1	3	17 (32%)
Representativeness	1	2	1	1	2	7 (13%)

*51 responding

Assessment of Surveillance and Epidemiology Capacity (Focus Area B) in Region 4:

Strengths:

- Most Region 4 agencies (8 of 10) have a designated epidemiology contact person to coordinate response to disease outbreaks within the community and with the Montana Department of Public Health and Human Services.
- Most Region 4 agencies either have or are developing a plan for receiving notifiable disease reports 24 hours per day, seven days per week (9 of 10), and collect and store disease data in paper form (>50% of agencies for most types of data; vaccine registry data is also stored in electronic form by eight agencies).
- More than half of Region 4 public health agencies (6 of 10) have protocols to enhance surveillance by collecting and analyzing meningitis/encephalitis syndromic data.
- More than half of Region 4 public health agencies can disseminate medical management information to local response partners within one hour of an event (six to eight of 10), and attempt to strengthen relationships with reporting sources through education (8) and addressing of barriers to reporting (6).
- Most Region 4 agencies have access to disease-specific information (7 of 10), reporting requirements (7), contact tracing (6), contact treatment or prophylaxis (6), and risk and vulnerability assessments for food and water (6,7).

Actions to Consider:

- Collaborate and provide training to increase epidemiologic skill availability.
  Human resources for disease investigation and response vary widely by agency despite jurisdiction size. It would be beneficial, therefore, for agencies to collaborate with other neighboring jurisdictions and include provisions for sharing resources in their emergency and epidemiologic response plans.

- Expand decision-making information resources for public health emergencies.
  Most agencies have access to the information needed for day-to-day epidemiologic surveillance and response. These resources should be expanded to include information on critical agents (available on the Department of Public Health and Human Services and Centers for Disease Control and Prevention Web sites), coordination of response efforts with environmental health and law enforcement, and legal authorities in a public health emergency.

- Create written protocols.
  Few Region 4 agencies have written protocols for the investigation of diseases, public health incidents and threats (4), and most conduct either no (3) or informal post-outbreak response evaluations (5). Formalizing both the investigation and post-event evaluation of public health events will ensure an efficient and effective response and facilitate the identification of areas for revision/addition to protocols.

Focus Area C: Laboratory Capacity

I. Lab Contact Information

Table C.1 - Reported Number of Level A Labs with Which
Montana Public Health Agencies Work Directly* (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All† n=53
# agencies reporting no labs	9	4	7	7	2	29
# agencies reporting 1 lab	7	4	2	2	3	18
# agencies reporting 2 labs	-	2	2	-	-	4
# agencies reporting 3 labs	-	-	-	1	1	2

*within their jurisdiction
†For this entire section, all counties and reservations responding; data not available for Granite, Jefferson, Liberty, Lincoln, Phillips and Pondera counties, and the Crow, Flathead, Fort Peck and Northern Cheyenne reservations

Table C.2 - Reported Number of Level A Labs* with Which Montana Public Health Agencies
Work and Have Information Available (counts)

	Region 1 n=7	Region 2 n=6	Region 3 n=4	Region 4 n=3	Region 5 n=4	All n=24
Primary contact information† for laboratory	5	5	3	3	4	20
Contact information for lab director or another principle contact at laboratory.	5	5	3	2	3	18
24/7 availability of primary contact	4	4	3	3	2	16
Agreement to perform emergency public health testing	2	3	-	1	1	7

* Includes only counties with 1, 2, or 3 Level A labs in their jurisdiction (see table C.1).
†Name, street address, mailing address, and phone and fax numbers

Approximately half of the public health agencies in Montana (22 out of 50 responses) report having laboratory services in their jurisdiction available to investigate emergency incidents within four hours of notification. Of these,

- Six of 16 agencies are in Region 1,
- Two of 10 agencies are in Region 2,
- Three of 11 agencies are in Region 3,
- Seven of 10 agencies are in Region 4, and
- Four of six agencies are in Region 5.

II. Testing of Specific Agents

**Table C.3 – Reported Number of Microbiology Labs
with Which Montana Public Health Agencies Work
and Their Critical Agent Testing Capabilities** (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Number with microbiology labs	2	2	3	5	2	14
Number of microbiology labs with capacity to rule out the following agents:						
B. anthracis (anthrax)	1	1	3	4	1	10
Brucella sp (brucellosis)	1	-	2	4	1	8
F. tularensis (tularemia)	1	-	2	4	1	8
Y. pestis (plague)	1	-	3	3	1	8

**Table C.4 – Policies and Procedures between Microbiology Labs
and Montana Public Health Agencies** (counts)

	Region 1 n=2	Region 2 n=2	Region 3 n=3	Region 4 n=5	Region 5 n=2	All n=14*
Policies/procedures						
Refer specimens that cannot be ruled out to the MT state Public Health Lab for confirmation	2	2	3	4	1	12
Prohibition of the receipt of environmental specimens	1	1	1	4	-	7†

* Includes only counties microbiology labs in their jurisdiction (see table C.3)
† Ten out of fourteen agencies responding

If a public health agency encounters a situation where their local labs cannot provide the level of testing that they need, they can contact the state public health lab for assistance. When asked this question, almost all agencies in all regions (46 out of 50 responses) reported knowing they can contact the state public health laboratory. The remaining agencies indicated they would contact a hospital lab or a lab in another state. Of the 46 agencies responding, 16 have a formal agreement with the state health lab. Of these,

- Two of 16 agencies are in Region 1,

- One of 10 agencies is in Region 2,
- Five of 11 agencies are in Region 3,
- Four of 10 agencies are in Region 4, and
- Four of six agencies are in Region 5.

Three counties, out of 51 responses, report having a safety officer specially trained on procedures in the Select Agent Rule to manage transfer of potentially dangerous clinical and environmental specimens/samples to a reference lab. Of these,

- One of 16 agencies is in Region 1, and
- Two of 11 agencies are in Region 5.

III. Agency's Specimen/Sample Transportation System

The table below describes the agency protocols for handling and transporting laboratory samples and the agreements established with community partners to handle lab specimens and reports.

Table C.5 - Agency Resources and Protocols for Managing Lab Specimens (counts)

Agency Laboratories:	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Have specimen handling protocols	4	1	-	4	4	13
Has protocols comply with HM-226	-	-	-	-	-	7
Has protocols accommodate electronic tracking	1	-	-	1	1	3
Has protocols accommodate chemical samples	1	-	-	1	-	2
Has protocols accommodate radiological samples	-	-	-	-	-	-
Has a specimen transportation system	3	2	3	5	4	17
That is available 24/7	1	1	-	3	2	7
That has been tested	1	1	1	2	2	7
If tested, met expectations for timeliness	1	1	1	2	2	7*
Agreements with community partners						
Has protocols and procedures with law enforcement and EMS to triage specimens/samples	3	1	1	1	1	7†
Has formalized agreements with first responders to confirm the results of field testing before dissemination	1	-	1	1	1	4†

* Seven out of 17 agencies responding
† 51 out of 53 agencies responding

IV. Relationships with Community Partners, Health Department and Labs

Most (35 out of 52 responses) public health agencies in Montana have a key contact in law enforcement to communicate results from lab reports. Of these,

- Nine of 16 agencies are in Region 1,
- Six of 10 agencies are in Region 2,
- Ten of 11 agencies are in Region 3,
- Five of 10 agencies are in Region 4, and
- Five of six agencies are in Region 5.

**Table C.6 - Public Health Agency and Level A Laboratory
Relationship Building Activities (counts)**

Activities	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Provides copies of health department regulations for reportable conditions	5	3	5	3	3	19
Receives technical assistance from labs	4	3	5	2	4	18
Provides primary contact information of health department contacts	5	3	5	1	3	17
Provides copies of report forms	4	4	6	2	-	16
Public health agency visits Labs	4	3	5	1	3	16
Provides technical assistance to labs	4	1	4	1	3	13
Dedicates staff time to building relationships	3	1	5	-	3	12
Provides periodic reports to labs on infectious disease surveillance	2	1	4	1	2	10
Sponsors local/regional emergency preparedness planning meetings with lab partners	2	-	1	-	1	4
Sponsors joint emergency preparedness training exercises with local labs	-	-	-	-	2	2

In addition to the above activities, seven counties (out of 53 responding) build relationships with their local labs through "other activities." These activities include sharing supplies (i.e. pregnancy tests, glucometers, etc.), case investigations, attending planning meetings, collaborating on other projects (such as wellness fairs), and through regular communication around communicable diseases.

**Table C.7- Number of Joint Agreements for 24/7 Lab Support
and Adherence to Chain of Custody for Criminal Evidence (counts)**

Groups that public health agencies have joint agreements with:	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Law enforcement	2	1	6	4	3	16
State public health laboratory	2	1	6	4	3	16
HAZMAT teams	1	1	5	3	3	13
First responders and fire fighters	1	2	1	2	2	8
Reference hospital or commercial laboratories	1	1	2	2	1	7
Infectious disease experts	-	1	1	2	2	6
Private biotechnology laboratories	-	1	-	1	1	3
University diagnostic or research laboratories	-	1	-	1	-	2
Military diagnostic or research laboratories	-	1	-	-	-	1

Slightly over half of the agreements to assure 24/7 lab support and adherence to chain of custody for criminal evidence between public health agencies and labs (37 out of 53*) are "other types of agreements"–usually oral agreements. Half (29 out of 53*) are part of the agencies emergency response plan. Very few agreements (12 out of 53) are formal written contracts or memoranda of understanding.

*Many agreements are classified as more than one type of agreement, i.e. both written and other.

Assessment of Laboratory Capacity (Focus Area C) in Region 4:

Strengths:

Laboratory capacity in Montana is in an early stage of development.

- Less than half of the public health agencies in Region 4 (3 out of 10 responses) report working with a Level A lab in their jurisdiction.
- Five public health agencies in Region 4 report access to a microbiology lab. At least three of these labs can rule out anthrax, brucellosis, tularemia, and plague.
- Most agencies in the region (7 out of 10 agencies) report having laboratory services in their jurisdiction available to investigate emergency incidents within 4 hours of notification.
- All public health agencies in Region 4 (10 out of 10 responses) know they can contact the state laboratory if their local lab cannot provide the level of service that they need.
- Some public health agencies who report working with labs in Region 4 engage in activities to build relationships with these labs.
    - The main activities are providing copies of health department regulations to the labs (3 out of 10 responses), receiving technical assistance from the labs (2 out of 10 responses), and providing copies of report forms (2 out of 10 responses)
- Half of the agencies in Region 4 (5 out of 10 responses) have a key contact in law enforcement to whom they can communicate lab results.

Actions to Consider:

- Create and/or formalize agreements between the public health agency and local labs to perform testing.
- Develop microbiology labs and testing capabilities for ruling out anthrax, brucellosis, tularemia, and plague.
- Develop formalized agreements with the state lab to perform testing if local labs cannot provide the level of testing that is needed.
- Build relationships between public health agencies and local labs through the designation of primary contacts between agencies, information sharing, personal contact, and other activities.
- Create and test specimen transportation systems in public health agencies.
- Create and/or formalize agreements with local partners to assure lab support and adhere to chain of custody for criminal evidence.
- Identify additional key contacts in law enforcement within the agencies in the region to whom agencies can communicate labs results.
- Create protocols and procedures with law enforcement and EMS to triage specimens and samples.
- Create and/or formalize an agreement with first responders to confirm results of field testing before dissemination.

Focus Area E: Health Alert Network/Communications and Information Technology

Table E.1 Montana Public Health Agency Web Site Characteristics (counts [%])

Web site attribute (number of agency sites with listed attribute)	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Updated at least once per day during an emergency	2	2	7	2	3	16 (30%)
Information on potential, suspected or confirmed hazards	0	0	1	1	3	5 (9%)
Information on associated risks	0	0	0	1	3	4 (8%)
Information on preventive measures	0	1	6	1	3	11 (21%)
Eighth-grade reading level	1	1	6	3	3	14 (26%)
Mechanism to contact agency staff for more information	2	1	6	3	4	16 (30%)
No Web site for public information	12	8	4	7	2	33 (62%)

*All counties and reservations responding

Table E.2 Health Alert Systems in Montana Counties and Tribes (counts [%])

Number of agencies with listed capacity/protocol	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
System capacities						
Operates 24/7	3	2	1	3	2	11 (21%)
Can send alerts within one hour of final approval	4	1	8	6	6	25 (47%)
Can receive alerts within one hour of time sent	7	1	8	6	6	28 (53%)
Tested at least once every three months	0	1	6	4	2	13 (25%)
Agency does not have a health alert system	8	7	2	4	0	21 (40%)
Message priority protocols						
Sort and send based on message urgency	3	3	1	5	4	16 (30%)
Ensure local agency approval and endorsement of message content	1	0	7	5	3	16 (30%)
Local authorization to send urgent messages	3	0	8	3	2	16 (30%)
Determining need for message to be acknowledged by recipient	1	1	1	3	1	7 (13%)
Selecting most appropriate messaging technology	5	3	2	4	3	17 (32%)

Agency information technology (IT) supports the electronic alerting and dissemination of public health information (either consistently or inconsistently) in the following:

- Six of 14 agencies in Region 1,
- Four of eight agencies in Region 2,
- Nine of 11 agencies in Region 3,
- Two of nine agencies in Region 4, and
- Four of five agencies in Region 5.

Agency information technology (IT) supports IT security and critical infrastructure protection (either consistently or inconsistently) in the following:
- Seven of 14 agencies in Region 1,
- Six of eight agencies in Region 2,
- Nine of 11 agencies in Region 3,
- Six of nine agencies in Region 4, and
- Four of five agencies in Region 5.

Five agencies in each of Regions 1, 2, and 5, nine agencies in Region 3, and four agencies in Region 4 are connected to the state agency with a secure electronic link.

Agency programs have begun transitioning to electronic data and messaging systems in 50% or more of the agencies in each region.
- Region 1: 1-49% of programs have transitioned in six agencies; 50-99% of programs have transitioned in three agencies.
- Region 2: 1-49% of programs have transitioned in five agencies.
- Region 3: 1-49% of programs have transitioned in nine agencies; 50-99% of programs have transitioned in one agency.
- Region 4: 1-49% of programs have transitioned in three agencies; 50-99% of programs have transitioned in three agencies.
- Region 5: 1-49% of programs have transitioned in three agencies; 50-99% of programs have transitioned in one agency.

Table E.3 Health Alert Partner Relationships* in Region 4 Public Health Agencies (counts)

Organization Groupings (number of agencies in grouping)	Formal Written Agreements		Informal, Unwritten Agreements	
	Agencies with at least one agreement* n=10	Number of agreements, range	Agencies with at least one agreement* n=10	Number of agreements, range
Government/legal (5)	1	1	8	1-4
Emergency response (5)	0	0	8	1-5
Medical/lab/health (19)	1	●	10	1-12
Law enforcement/safety (4)	0	0	7	1-3
Environmental (3)	1	1	7	1-2
Other community (7)	0	0	8	1-6
Neighboring jurisdictions (1)	1	1†	●	1†
Foreign borders and neighboring states (1)	0	0	0	0

*Number of county and tribal public health agencies with at least one agreement with an organization in the particular grouping
†Number of jurisdictions/borders/states not specified

Table E.4 Contact Information for Public Health Agency Personnel and Health Alert Partners in
Montana Counties and Tribes (counts)

Agency activity [Number performing listed activity]	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Develop a directory						
Agency personnel	9	3	1	5	5	23
Health alert partners	7	3	2	7	3	22
Update information monthly						
Agency personnel	2	1	2	1	1	5
Health alert partners	3	1	3	1	1	6
Distribute copies of directories to authorized staff and emergency response partners annually	3	1	2	1	2	9

Table E.5 Communications Technology in
Montana Public Health Agencies (counts [%])

Number of agencies with listed technology	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Fax machine	16	6	11	10	6	52 (98%)
Fax, using computer fax server for simultaneous broadcast	4	1	1	4	5	15 (28%)
Computer-generated fax using e-mail	6	4	8	3	5	26 (49%)
Computer-generated fax using software and modem	5	3	3	2	3	16 (30%)
Conference phone	13	5	9	6	5	38 (72%)
Cell phone	15	6	8	5	5	39 (74%)
Two-way radios	4	2	0	3	2	11 (21%)
Redundant mechanisms for communication	12	5	8	6	6	37 (70%)

Table E.6 Communications Access of Key Agency Staff in Region 4 (counts)

Number of key agency staff* n=10	All key staff	50-99%† key staff	1-49%† key staff	No key staff
Internet access	7	2	0	1
"Always on" e-mail	2	3	0	5
E-mail via dial-up modem	2	2	2	4
E-mail access from a remote location‡	1	1	0	6
Cell phone	2	4	1	3

*Includes lead local public health official, local health officer, nursing director, environmental health director, agency epidemiology contact person, local public health emergency preparedness and response coordinator, public information officer, IT manager; staff performing more than one key staff job functions counted only once
†Percentage = number of staff with identified communications access/number of key agency staff that exist in the agency
‡Eight responding

Key agency staff (Table E.6) include the lead local public health official, local health officer, nursing director, environmental health director, agency epidemiology contact person, local public health emergency preparedness and response coordinator, public information officer and IT manager. The number of key agency staff per local public health agency in Region 4 ranges from one to seven.

Table E.7 Network Setup and Security Features in Montana Public Health Agencies

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Number of computers* [mean number (range) per agency]	4 (0-14)	6† (0-30)	3 (0-6)	7 (1-36)	5 (4-6)	5† (0-36)
Connections						
"Always on" high-speed Internet connection [mean % (range) per agency]	50.0% (0-100%)	34.5% (0-100%)	45.5% (0-100%)	45.0% (0-100%)	75.0% (50-100%)	48.0% (0-100%)
"Dial-up" Internet connection* [mean % (range) per agency]	28.3% (0-100%)	34.4% (0-100%)	46.5% (0-60%)	43.3% (0-100%)	27.4% (0-50%)	35.8% (0-100%)
LAN*						
Maintained by agency	3	4	1	0	1	9
Maintained by county	4	3	1	4	3	15
Maintained by other	2	0	2	1	2	7
Without a LAN	7	3	7	4	0	21
Computer software available	number of county/tribal agencies with software available					
Microsoft Outlook	14	8	11	7	5	45
Microsoft Excel	12	8	10	7	6	43
Microsoft PowerPoint	12	7	9	5	6	39
Microsoft Word	15	9	11	9	6	50
Computer-based fax	6	4	4	3	4	21
Adobe Acrobat reader	15	9	10	8	5	47
Adobe Acrobat – full	3	1	2	3	4	13
Security systems	number of county/tribal agencies with security systems					
Files with patient identifiers protected from unauthorized access*	7	6	9	7	6	35
Virus protection software*						
LAN and workstations	7	4	7	6	4	28
LAN only	1	1	1	1	1	5
Workstations only	7	4	3	0	0	14
Vulnerability software*						
Automated	1	2	0	4	2	9
Manual	3	2	2	1	1	9
Routine data back-up schedule*	7	7	8	7	6	35
Firewall ‡	8	6	2	5	5	26
Automated Network intrusion system‡	2	4	1	2	2	11
Written policies*						
E-mail and/or Internet use by staff	5	5	4	5	5	24
Maintaining confidentiality of paper records and identifiers	4	5	10	6	2	27
Maintaining confidentiality of electronic records with patient identifiers	2	2	3	3	2	12
Password security	5	4	3	4	3	19

*44 to 52 responding
†Does not include two tribal agencies with 104 and 110 computers
‡38 to 43 responding

Four agencies in each of Regions 2 and 4, and one agency in each of Regions 1 and 5 have independent validation and verification of electronic security systems.

Table E.8 Public Health Agency Staff Computer Abilities in Montana Counties and Tribes

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Average % (range) public health agency staff in counties/tribes with the listed attribute/ability						
Adequate access* to computer	81.5% (0-100%)	80.5% (0-100%)	60.2% (40-100%)	94.9% (50-100%)	84.3% (50-100%)	80.7% (0-100%)
Able to browse Internet for information	82.4% (0-100%)	72.5% (50-100%)	59.5% (20-100%)	77.6% (0-100%)	73.1% (50-100%)	73.9% (0-100%)
Able to download and open PDF file from Internet	80.9% (0-100%)	70.0% (0-100%)	65.5% (0-100%)	66.4% (0-100%)	70.1% (25-100%)	71.7% (0-100%)
Knowledgeable in use of						
Microsoft Outlook‡	54.1% (0-100%)	87.5% (50-100%)	79.5% (50-100%)	49.5% (0-100%)	81.2% (56-100%)	67.5% (0-100%)
Microsoft Excel‡	36.9% (0-100%)	38.0% (30-50%)	43.3% (25-100%)	26.8% (0-64%)	55.4% (22-100%)	39.7% (0-100%)
Microsoft PowerPoint§	12.6% (0-40%)	21.7% (10-30%)	61.6% (13-83%)	21.8% (0-50%)	38.0% (0-90%)	32.3% (0-90%)
Microsoft Word‖	78.7% (0-100%)	80.0% (50-100%)	86.2% (50-100%)	73.1% (0-100%)	87.8% (71-100%)	80.8% (0-100%)
Computer-based fax§	0	15.0% (0-30%)	36.5% (6-50%)	34.0% (18-50%)	41.5% (0-90%)	22.8% (0-90%)
Adobe Acrobat reader‖	67.9% (0-100%)	80.0% (50-100%)	82.3% (25-100%)	83.2% (33-100%)	77.8% (43-100%)	76.7% (0-100%)
Adobe Acrobat – full§	0	30.0%¶	56.5% (13-100%)	9.0% (0-27%)	31.4% (0-100%)	21.8% (0-90%)

*All staff requiring a computer to perform job duties
†Only one agency reporting less than 100% staff with access/ability
‡37 to 39 responding
§Fewer than 33 responding
‖41 to 43 responding
¶Only one agency responding

Information Technology Expertise and Support

- The number of public health agencies with access to information technology (IT) expertise internally (i.e., from own agency) ranges from three agencies with data modeling expertise to 41 agencies with data entry expertise.
- All regions have at least one agency with access to expertise internally in the following areas: data entry, network management, server application management, database management, IT disaster recovery and planning, programming, Web site management, IT internal user support, management of possible case contact and threat data, analysis and visualization of data electronically, and maintenance of electronic directories with contact information.
- Regions 2, 3, 4, and 5 each have at least one agency with access to IT security expertise internally.
- Regions 2, 4, and 5 each have at least one agency with access to expertise in Geographic Information Systems (GIS), Web site development, and standard data vocabularies internally.
- Regions 2 and 5 have at least one agency with access to data modeling expertise internally.
- Public health agencies in Montana most commonly obtain support for IT through various vendors on an as-needed basis (23 agencies obtaining support, 43% and 10 jurisdictions obtaining support, 19%).
- Four of 10 agencies in Region 2 employ dedicated IT staff to support specific functions of the agency.
- Twenty-five agencies obtain support for IT through another private entity, unit of government or other agency, including DPHHS, the hospital or clinic, and courthouse IT staff. These 25 agencies include:
  - Five of 11 agencies in Region 1,
  - Four of 10 agencies in Region 2,
  - Four of 11 agencies in Region 3,
  - Eight of 10 agencies in Region 4, and
  - Four of six agencies in Region 5.

Assessment of Health Alert Network/Communications and Information Technology (IT) Capacity (Focus Area E) in Region 4:

Strengths:
- More than half of Region 4 public health agencies have a formal health alert system (6 of 10) and redundant mechanisms for communication (6).
- More than half of Region 4 public health agencies (6 of 10) have at least some programs that have transitioned to electronic data systems.
- Staff members in most of Region 4 agencies have adequate access to a computer (adequate for all staff in eight agencies).
- In most Region 4 agencies, files with patient identifiers are protected from unauthorized access (7 of 10), there is routine data back-up (7), and virus protection software is on the LAN, individual workstations, or both (7).
- Staff members in most Region 4 agencies are able to browse the Internet for information (mean 78% staff per responding agency) and download and open Adobe Acrobat files (mean 66% staff per responding agency).

Actions to Consider:
- Access and provide public information via the Web.
  Three agencies have a Web site for public information. The Web is an important vehicle for information dissemination in a public health emergency. Agencies would benefit from identifying available state and regional Web resources.

- Expand and improve health alert systems.
  In addition to developing health alert systems in the other four jurisdictions that do not currently have one, the health alert systems currently in place could be improved by the development of messaging protocols and provisions for operation 24 hours per day, seven days per week.

- Formalize agreements with local agencies ("health alert partners") for sending and receiving health alerts.

- Increasing the communications technology available, developing written security policies, and increasing high speed Internet access are other "next steps" for Region 4 public health agencies.

- Access and participate in information technology training.
  Although most agencies have Microsoft Office and Adobe Acrobat Reader software (five to nine, depending on software application), few are proficient in the use of MS Excel, MS PowerPoint, and computer-based fax software (mean 27%, 22% and 34% of staff per agency, respectively) and would benefit from training in the use of these tools. The percent staff proficient in computer software applications varies widely (0-100% of staff per application, per responding agency); therefore training should be targeted to the particular needs of each agency.

Focus Area F: Risk Communication and Health Information Dissemination

The majority of public health agencies in Montana have some access to a Public Information Officer (PIO) (36 out of 52 responses). The breakdown by region is included in Table F.1.

Table F.1 - Agency Access to a Public Information Officer (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All* n=53
PIO works directly for the agency	1	-	-	-	1	2
Agency shares a PIO	1	3	2	2	-	8
Existing staff assume some PIO responsibilities	6	4	8	5	3	26
Agency does not have access to a PIO	2	2	1	3	2	16

*For this entire section, all counties and reservations responding; data not available for Granite, Jefferson, Liberty, Lincoln, Phillips and Pondera counties, and the Crow, Flathead, Fort Peck and Northern Cheyenne reservations

Eleven public health agencies (out of 50 responses) have a policy to routinely route all media calls to the public information officer. Of these,
- Three of 16 agencies are in Region 1,
- Two of 10 agencies are in Region 2,
- Two of 11 agencies are in Region 3,
- Three of 10 agencies are in Region 4, and
- One of six agencies is in Region 5.

Table F.2 - Status of Emergency Contact Directory (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
The agency does not have a directory	11	5	9	3	9	33
Emergency contact directory-present status						
Paper directories only	3	2	2	1	1	12
Electronic directories only	-	-	-	2	-	4
Both paper and electronic directories	1	1	-	1	-	3

Table F.3 - Status of Emergency Contact List (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
No emergency contact list is maintained by the agency	11	3	2	1	2	25
Emergency Contact List contains 24/7 contact information for:						
Agency Administrator/Director	4	-	-	4	1	9
Health Officer	4	2	2	6	1	15
Public Health Nursing Director	3	2	2	6	1	14
Environmental Health Director	3	3	2	4	1	13
State Department of Health	2	4	2	5	1	14
Local law enforcement	4	7	2	7	3	23
Emergency management agency/EOC	3	4	2	2	1	12
Hospitals within the agency	5	6	2	4	2	19
Emergency medical services (EMS) agencies	4	5	2	5	2	18
County Veterinary Coordinator	2	-	-	2	-	4
Tribes	-	3	-	-	-	3
Federal agencies	-	1	-	2	-	3

Fifteen public health agencies currently have an emergency response/crisis comunication plan. Of these,

- Three of 16 agencies are in Region 1,
- One of 10 agencies is in Region 2,
- Seven of 11 agencies are in Region 3, and
- Four of 10 agencies are in Region 4.

The following table (F.4) presents items addressed in the agency's emergency response/crisis communication plans.

Table F.4 - Emergency Communications Planning-
Items in Agency's Emergency Response/Crisis Communication Plan (counts)

Items that are addressed in the agency's emergency response plan	Region 1 n=3	Region 2 n=1	Region 3 n=7	Region 4 n=14	Region 5 n=0	All n=15
Messenger						
An agency staff member and at least one alternate assigned the role and responsibilities of Public Information Officer (PIO)	1	-	6	2	-	9
Lines of authority and responsibilities for the public information team	1	-	6	2	-	9
Work and relief scheduling for the public information team to maintain 24 hours per day operations (2-3 work shifts per day) for at least several days	-	-	1	-	-	1
Identification of persons to act as spokespersons on public health issues during an emergency for multiple audiences and formats (spokespersons representing different ethnic groups, media spokespersons, community meetings, speakers, etc.)	2	-	5	1	-	8
Command and control						
Verification (accuracy/appropriateness), clearance and approval procedures for information that will be released to response partners, media, and public	2	-	1	2	-	5
Coordination with public information officials from partner organizations to ensure message consistency	1	-	7	1	-	9
Liaison between public health agency and Emergency Operations Center (EOC)	1	-	7	2	-	10
Briefings with agency director, EOC command, and higher headquarters to update and advise on information intended for release, incident-specific policy, science, and situation	1	-	1	2	-	4

Table F.4 - Emergency Communications Planning-
Items in Agency's Emergency Response/ Crisis Communication Plans, continued (counts)

Items that are addressed in the agency's emergency response plan	Region 1 n=3	Region 2 n=1	Region 3 n=7	Region 4 n=14	Region 5 n=0	All n=15
Creating "Go-Kits"						
Laptop computer capable of connecting to Internet/e-mail	-	-	6	1	-	7
CD-ROM with elements of crisis communications plan (emergency contact information, pre-prepared materials, medical management information, manuals, background information, etc.)	-	-	-	-	-	-
Portable printer	-	-	-	-	-	1
Cell phone or satellite phone, pager, wireless e-mail	1	-	6	1	-	8
List of regional and local media contacts	1	-	7	1	-	9
List of local response team members	1	-	-	1	-	2
Media information						
Triage of media requests and inquiries	1	-	1	1	-	3
Response to media requests (e.g., daily press conferences, Web site updates)	1	-	1	1	-	3
Locations, equipment, and supplies for press conferences	1	-	1	-	-	2
Production of media advisories, press releases, fact sheets, b-roll	1	-	-	2	-	3
Monitoring media through environmental and trend analysis (e.g., clipping service, monitoring news coverage) to determine messages needed, misinformation to be corrected, media concerns and interest during crisis	-	-	6	-	-	6
Direct public information						
Assessing existing telephone capacity to determine the need for additional lines during an emergency	2	-	1	2	-	5
Response to public requests for information directly from the agency by telephone (e.g., hotline), in writing, or by e-mail	1	-	1	2	-	4
Monitoring public through environmental and trend analysis to determine messages needed, misinformation to be corrected, public concerns, and public interest during crisis	-	-	6	1	-	7
Timeliness and accuracy of public Website information	-	-	-	1	-	1
Public advertising of agency contact information	1	-	-	1	-	2

Table F.4 - Emergency Communications Planning-
Items in Agency's Emergency Response/ Crisis Communication Plans, continued (counts)

Items that are addressed in the agency's emergency response plan	Region 1 n=3	Region 2 n=1	Region 3 n=7	Region 4 n=14	Region 5 n=0	All n=15
Partner/stakeholder information						
Response to requests and inquiries from partners, legislators, and special interest groups	-	-	1	-	-	3
Regular partner briefings and updates	2	-	-	2	-	5
Logging calls from legislators and special interest groups	-	-	1	1	-	2
Monitoring partners through environmental and trend analysis to determine messages needed, misinformation to be corrected, partner concerns and interest during crisis	-	-	6	-	-	6
Content and material						
Translation of Emergency Operation Center (EOC) situation reports, health alerts, and meeting notes into information appropriate for partners	2	-	7	1	-	
Translation of scientific information into layman's terms and multiple languages	-	-	2	1	-	
Identification of subject matter experts who can effectively "validate" public health messages, and assist in the creation of situation-specific fact sheets and responses to Frequently-Asked-Questions (FAQs)	1	-	2	1	-	

Table F.5 - Emergency Communications **Protocols** (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
The public health agency does not have emergency communications protocols	-	-	5	-	-	37
Protocols in place to:						
Release public information on potential, suspected, or confirmed hazards	2	3	3	3	1	12
Release public information on associated risks	2	3	3	3	1	12
Release public information on prevention measures	2	3	3	3	1	12
Institute rumor control measures	-	3	3	3	-	9
Release information in the dominant languages of the community	-	3	3	1	-	7
Link with the Emergency Broadcast System	-	4	1	3	-	8
Release information to first responders	1	3	3	2	1	10
Release information to healthcare providers	2	2	3	2	2	11

Table F.6- Evaluation of Emergency Response/ Crisis Communication **Plans** (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Do not have an emergency response/crisis communication plan	12	7	10	6	5	40
Methods used to evaluate emergency response/crisis communication plan:						
Uses emergency preparedness drills and exercises to test its emergency response/crisis communication plan	3	2	1	1	-	7
Conducts at least one debriefing with its public information staff after exercises, drills, hoaxes, and real events to discuss lessons learned	1	1	-	3	-	5
Revises its emergency response/crisis communication plan based on lessons learned during exercises, drills, hoaxes, and real events	1	2	1	3	-	7

Table F.7 - Information Dissemination Mechanisms (counts)

Agencies disseminate information using these mechanisms	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Media channels (e.g., print, TV, radio)	13	9	10	9	9	47
Letters by mail	13	8	8	8	8	43
Town hall meetings	4	5	4	1	4	22
Website	3	4	4	3	4	19
List-serve e-mail	1	3	7	4	4	19
Mass distribution through partners (e.g., churches, retailers, restaurants)	5	4	7	2	1	19
Broadcast fax	5	3	-	6	2	16
Newsletters	2	3	-	5	3	13
Door-to-door canvassing	2	2	6	1	1	12
Government access channels (e.g., cable television)	1	2	7	1	1	12
Regular or special partner conference calls	2	2	1	2	4	11
Public utility bill messages or inserts	2	1	6	1	1	11
Submissions to partner newsletters	3	3	1	2	1	10
Phone banks	1	1	-	1	1	4
"Reverse 911" messaging	-	-	-	-	-	-

Eight public health agencies (out of the 50 responding counties) engage special populations (e.g. elderly, migrant, tribal, border, institutionalized, etc.) to identify trusted and accepted communication vehicles. Of these,

- Three of 16 agencies are in Region 1,
- One of 10 agencies is in Region 2,
- One of 11 agencies is in Region 3,
- One of 10 agencies is in Region 4, and
- Two of six agencies are in Region 5.

Other methods that agencies use to disseminate information include telephone, fax, radio, and distribution lists targeting specific agencies and people.

Table F.8 - Number of Staff Responsible for Disseminating Information (counts)

Staff positions:	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Writer/editor	4	2	8	3	2	19
Geographic information systems (GIS) specialist	2	3	2	3	3	13
Health education specialist	1	3	2	3	3	12
Commercial printers	1	3	2	-	3	9
Health communication specialist	-	1	2	2	2	7
Language translators	1	2	2	1	1	7
Public affairs specialist	-	1	2	2	1	6
Crisis communication specialist	-	1	2	2	1	6
Graphics illustrator/artist	1	2	1	1	1	6
Audio-visual specialist	-	1	-	1	1	3
Training specialist	-	1	1	-	-	2

Table F.9 - Informational Materials Produced by Public Health Agency (counts)

Agencies have produced or modified public informational materials concerning:	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Anthrax	8	3	1	5	3	20
Smallpox	9	2	5	3	1	20
Botulism	1	1	1	2	1	4
Tularemia	1	1	-	2	1	4
Plague	-	-	-	2	1	3
Hemorrhagic fever	1	-	-	1	-	2
Chemical agents	1	-	-	-	-	1
None of the above	7	5	5	5	3	25

Table F.10 - Pre-Crisis Topic-Specific Information Materials Available (counts)
Reportable Conditions

Reportable conditions	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Topic fact sheet	11	6	9	9	6	41
Recommendations for affected persons	7	7	4	5	5	31
Web links to information on the topic	5	5	2	4	5	22
Public frequently asked questions (FAQ)	5	4	2	5	5	21
Training videos	5	3	1	5	1	21
Press releases/newspaper articles	5	3	2	1	4	16
Resource fact sheet for public/media/partners to obtain additional information	5	4	1	1	2	13
Fact sheet on the topic as it relates to the agency (e.g., roles, responsibilities, and resources)	4	1	1	1	2	9
Partner FAQ	3	2	-	2	1	8
Computer projected presentations	-	1	2	1	2	6
Background beta video (b-roll for media use on the topic)	-	-	-	-	-	-
Telephone scripts in multiple languages	-	-	-	-	-	-

Table F.10 - Pre-Crisis Topic-Specific Information Materials Available, continued (counts)
Critical Biological Agents

Critical biological agents	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Topic fact sheet	7	3	7	4	4	25
Recommendations for affected persons	5	3	6	5	2	21
Web links to information on the topic	4	3	2	5	4	18
Public frequently asked questions (FAQ)	5	3	1	4	2	15
Training videos	3	2	8	5	1	19
Press releases/newspaper articles	3	1	1	2	1	8
Resource fact sheet for public/media/partners to obtain additional information	4	2	-	1	1	8
Fact sheet on the topic as it relates to the agency (e.g., roles, responsibilities, and resources)	2	1	1	1	-	5
Partner FAQ	2	1	-	-	-	3
Computer projected presentations	-	-	2	1	2	5
Background beta video (b-roll for media use on the topic)	-	-	-	-	-	-
Telephone scripts in multiple languages	-	-	-	-	-	-

Table F.10 - Pre-Crisis Topic-Specific Information Materials Available, continued (counts)
Chemical Agents

Chemical Agents	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Topic fact sheet	3	1	-	-	2	6
Recommendations for affected persons	3	2	-	-	-	6
Web links to information on the topic	4	2	-	2	3	12
Public frequently asked questions (FAQ)	1	1	-	-	-	2
Training videos	1	1	-	-	-	2
Press releases/newspaper articles	4	1	-	-	-	5
Resource fact sheet for public/media/partners to obtain additional information	2	2	-	1	-	5
Fact sheet on the topic as it relates to the agency (e.g., roles, responsibilities, and resources)	-	1	-	1	1	3
Partner FAQ	1	-	-	-	-	1
Computer projected presentations	-	-	-	-	-	-
Background beta video (b-roll for media use on the topic)	-	-	-	-	-	-
Telephone scripts in multiple languages	-	-	-	-	-	-

Table F.10 - Pre-Crisis Topic-Specific Information Materials Available, continued (counts)
Other Public Health Threats

Other public health threats	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Topic fact sheet	6	4	1	5	5	21
Recommendations for affected persons	5	3	-	5	3	16
Web links to information on the topic	5	3	1	2	3	14
Public frequently asked questions (FAQ)	5	2	1	2	3	13
Training videos	5	1	-	2	1	9
Press releases/newspaper articles	4	2	1	-	2	10
Resource fact sheet for public/media/partners to obtain additional information	3	3	1	1	1	9
Fact sheet on the topic as it relates to the agency (e.g., roles, responsibilities, and resources)	4	1	-	1	1	7
Partner FAQ	3	-	-	-	-	3
Computer projected presentations	-	-	1	1	1	3
Background beta video (b-roll for media use on the topic)	-	-	-	4	-	1
Telephone scripts in multiple languages	-	-	-	-	-	-

Table F.11 – Agency's Training Needs Assessment (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
The agency:						
Does not have a training needs assessment	14	10	5	8	5	42
Topics included in training needs assessment						
Risk communication	-	-	6	2	-	9
Crisis Communication	1	-	6	2	-	9
Preparing oral and written communication tailored to each type of media (e.g., newspaper, radio, television)	-	-	6	1	-	7
Preparing oral and written communication tailored to the majority and minority cultures of the community	1	-	6	1	-	8
Preparing communication materials tailored to hearing and sight impaired persons in the community	1	-	6	1	-	8
Preparing and distributing a news release	-	-	6	2	-	8
Developing communications objectives for media appearances/publication	-	-	6	1	-	7
Other types of assessments:						
Periodically assess the risk/crisis communication and media relations training needs of its own staff.	1	1	-	1	1	4
Participates with community organizations/agencies to assess the risk/crisis communication and media relations training needs of public health partners.	4	-	7	2	1	14

Assessment of Risk Communication and Health Information Dissemination (Focus Area F) in Region 4:

Strengths:
The capacity of public health agencies in Montana to communicate risk and disseminate health information is in an early stage of development.

- Emergency contact directories can be found in most of the health agencies in the region (7 out of 10 counties).
- Emergency contact lists are present in the region (in 9 out of 10 agencies).
- Emergency response/ crisis communication plans are present in four counties in Region 4.
- Almost all agencies in the region (9 out of 10 agencies) use media channels (such as print or TV) or send out letters (9 out of 10 agencies) to disseminate information.
- Half (5 out of 10) of the agencies in Region 1 have produced informational materials. The most common materials produced by the region are anthrax materials (in 5 out of 10 agencies in the region).
    - Most agencies in the region have access to some informational materials on reportable conditions (9 out of 10 agencies), critical biological agents (5 out of 10), other public health threats (5 out of 10), and chemical agents (2 out of 10).

Actions to Consider:
- Designate and involve public information officers (PIOs) in all counties.
- Develop a policy to routinely route all media calls to the PIO.
- Create emergency contact directories in all counties.
- Create and develop emergency response/crisis communication plans.
- Create emergency communication protocols plans in local health agencies.
- Access pre-crisis topic specific informational materials on reportable conditions, critical biological agents, chemical agents, and other public health threats (additional information can be found in table F.10).

Focus Area G: Education and Training

Table G.1 - Public Health Education and Training Needs Assessment (counts)

Activities and Resources	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All* n=53
Have designated staff person responsible for staff training	4	3	7	5	4	23
Agency shares staff responsible for training	1	3	3	-	-	10
Conduct internal training needs assessment	2	3	1	-	1	6
Participate in joint trainings with state PH agencies/ LEPC/TERC	5	3	10	5	5	34

*For this entire section, all counties and reservations responding; data not available for Granite, Jefferson, Liberty, Lincoln, Phillips and Pondera counties, and the Crow, Flathead, Fort Peck and Northern Cheyenne reservations

Less than half of the public health agencies (23) in Montana have a staff person responsible for coordinating training activities. However, an additional 10 agencies share staff with another agency to perform this role. The mean full time equivalents (FTE) for these individuals are 0.41 (range of .03-2.00). Eighteen (out of the 27 responding) of these individuals' job descriptions include coordinating training activities.

Six counties (out of 52 responding) conduct an internal needs assessment. Of these,
- Two of the 16 agencies are in Region 1,
- Three of the 10 agencies are in Region 4, and
- One of the six agencies is in Region 5.

Three of the six needs assessments include emergency preparedness. None of the counties have a written training plan that is based on the most recent training needs assessment. Four counties annually review progress towards meeting their training needs.

Table G.2 - Incentives Provided for Staff to Participate in Training (counts)

Incentives	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Provide any incentives for staff to participate in training	7	4	10	5	4	30
Pay per diem while attending trainings	4	4	8	5	4	28
Have a system to alert staff of trainings	6	3	9	5	3	26
Provide staff with paid time to attend trainings	7	4	10	5	4	30
Provide staff paid time to work on homework	5	1	-	2	1	9
Reserve funds from the budget for training expenses	7	3	3	5	4	22
Have a written office policy that allows staff to attend trainings	2	1	1	3	2	9

Table G.3 - Distance Learning Inventory (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Staff responsible for distance learning						
Have designated staff person responsible for coordinating distance learning activities*	4	8	8	4	2	21
Have another person who organization uses to coordinating distance learning activities†	2	3	1	1	-	7
Coordinating distance learning activities is written in job descriptions‡	1	1	1	-	-	3
Agency provides						
Access to the World Wide Web	14	7	10	7	6	44
Provisions to take courses during working hours	14	6	11	6	6	43
Use of the computer	14	7	9	6	6	42
Access to online libraries and databases	8	4	6	7	5	30
Budget to pay registration fees	11	5	4	6	3	29
Access to in-person, live-speaker instruction for its employees	5	6	9	6	3	29
Provisions to complete homework during work time	9	2	9	3	4	27
Ability to purchase up-to-date software	9	5	1	4	3	22
Other forms of access to distance learning	3	1	7	-	2	13
Other on-line learning resources	-	-	1	-	2	3
Agency collaborates with other agencies in area to coordinate or provide distance learning opportunities	12	5	10	6	5	38

* Out of 52 responding agencies
† Out of 22 responding agencies
‡ Out of 23 responding agencies

Of the 38 agencies (out of 46 responding) who collaborate with other agencies in the area to coordinate or provide distance learning opportunities, most collaborate with hospitals or other emergency response agencies. About one-third collaborate with a local education institution and local extension agencies. The most common way to collaborate is sharing facilities and space (classrooms) or technology (satellites).

Table G.4- Barriers to Distance Learning (Counts)

Topic	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Lack of time for staff to devote to distance learning	14	7	11	9	6	47
Slow internet conductivity	6	3	7	3	2	21
Lack of satellite receivers	7	7	4	2	1	21
Lack of confidence in using computers	5	4	7	2	1	19
Limited outdated computer technology	3	6	8	1	-	18
Not enough computers at site	5	1	8	1	2	17
Distance to nearest METNET or Vision Net telemedicine site	7	2	2	2	1	14
Lack of capability to video tape programs for later viewing	6	1	-	3	1	11
Lack of computer audio	3	2	1	2	-	8
No internet access	2	1	1	2	-	6
Inadequate number of phone lines	2	1	1	-	-	4
Lack of CD-ROM	1	1	-	1	-	3
Access for people with disabilities	-	1	-	-	-	1

In addition to the barriers listed above, other barriers to distance learned mentioned are lack of funding, competition for MetNet sites, and the lack of classroom space.

Table G.5 - Distance Learning Technologies Used

Technologies Used	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Phone conferencing	13	8	11	7	6	45
Computer conferencing (e-mail, list-serves, chats, etc)	9	6	10	6	9	37
METNET, Vision NET, other 2-way video conferencing systems	10	8	8	6	5	36
Satellite program broadcast downlink	9	5	8	7	6	35
CD-ROM	7	7	8	5	4	31
Real Player, Windows Media Player, other video streaming tech.	3	4	8	1	3	19
OTHER distance learning technology (videotapes)	2	1	-	-	1	4
Internet-based videoconferencing (e.g. "Net Meeting")	-	1	-	-	-	1
24/7 access to satellite downlink capabilities	9	1	6	4	5	25
Satellite is on-site	6	1	6	2	5	20
Have a written agreements with other agencies for satellite use	-	-	5	1	-	6
Have an oral agreements with other agencies for satellite use	3	-	-	-	-	3
Have another type of agreement for satellite use	-	-	-	1	-	1

Table G.6 – Methods Used to Train Staff (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Agency does not train staff	6	4	3	6	1	20
Methods used to train staff						
Meetings with community partners/emergency planning committee (LEPC, TERC)	9	4	8	4	4	29
Continuing education	8	4	7	4	4	27
New employee orientation	5	4	7	3	2	21
Routine staff meetings	4	3	6	2	3	18
Job-specific training	2	5	6	2	3	18
Practice sessions or drills with partners	4	1	6	2	1	14
Division or office-specific meetings	2	2	6	2	1	13
Practice sessions or drills with employees	1	2	6	2	-	11

Several agencies reported that the reasons why they do not train staff are limited resources and a small number of staff. Three agencies send staff to state sponsored trainings or have them participate in satellite trainings.

Table G.7 – Training Attended and Need for Additional Training (counts)
Number of Agencies Whose Staff has Attended at Least One Training in this Topic

Training Topic	Number of agencies whose staff has attended at least one training in this topic					
	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Disease reporting and investigation requirements in your state	9	3	8	6	4	30
How the public health system works in your state	6	1	9	5	4	25
Incident Command System/Unified Command	8	4	6	4	-	22
Basic education regarding biological and chemical incidents	1	5	9	3	3	21
Specific procedures to follow during biological and chemical incidents	1	3	6	3	1	14
How to identify and recognize a bioterrorism event	2	3	5	2	2	14
Epidemiology	1	3	2	4	4	14
Surveillance- including syndromic surveillance	1	2	1	4	3	12
Risk communication and working with the media	2	2	1	4	2	11
Infections/syndromes related to the critical agents lists	2	1	1	4	2	10
Developing and maintaining intersectoral collaboration for emergency preparedness response	2	1	-	2	1	6
Mental health issues related to bio-terrorism and other public health emergencies	1	-	-	1	1	3

Table G.7 – Need for Additional Trainings, continued (counts)
Number of Agencies Who Think Additional Training is Needed

Training Topic	Number of agencies who think additional training is needed					
	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Specific procedures to follow during biological and chemical incidents	10	7	10	6	6	41
Basic education regarding biological and chemical incidents	10	7	11	6	6	41
How to identify and recognize a bioterrorism event	12	7	9	7	5	40
Incident Command System/Unified Command	12	7	10	5	6	40
Infections/syndromes related to the critical agents lists	13	6	9	6	6	40
Risk communication and working with the media	12	7	9	6	6	40
Mental health issues related to bio-terrorism and other public health emergencies	13	6	9	6	5	39
Surveillance- including syndromic surveillance	13	7	9	4	5	38
Epidemiology	12	6	9	6	5	38
How the public health system works in your state	9	6	11	3	5	34
Disease reporting and investigation requirements in your state	12	7	9	1	5	34
Developing and maintaining intersectoral collaboration for emergency preparedness response	11	7	6	3	5	32

Table G.7 – Need for Additional Trainings, continued (counts)
Number of Agencies Who Rate Need for Training in this Topic as "High"

Training Topic	Number of agencies who rate need for training in this topic as "high"					
	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Specific procedures to follow during biological and chemical incidents	3	4	9	7	4	33
Basic education regarding biological and chemical incidents	4	4	10	5	3	29
How to identify and recognize a bioterrorism event	9	4	9	4	2	28
Incident Command System/Unified Command	6	4	10	3	4	27
Surveillance- including syndromic surveillance	7	5	9	2	4	27
Infections/syndromes related to the critical agents lists	7	4	8	6	2	27
Risk communication and working with the media	5	3	8	2	4	22
Epidemiology	5	2	7	4	3	21
Mental health issues related to bio-terrorism and other public health emergencies	4	2	8	4	2	20
How the public health system works in your state	1	2	8	1	1	13
Disease reporting and investigation requirements in your state	1	3	7	1	-	12
Developing and maintaining intersectoral collaboration for emergency preparedness response	3	3	4	1	1	12

Table G.8 - Training Topics Provided to Public Health Workers by Agency (counts)

	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Agency does not provide training or collaborate to provide training	6	2	8	3	-	19
Training topics provided						
Disease reporting requirements in your state	8	5	2	6	6	27
Infections/syndromes related to the critical agents lists	1	3	1	5	3	13
How the public health system works in your state	6	3	1	2	-	12
Epidemiology	1	3	1	4	1	10
Surveillance	3	1	1	3	1	9
Incident Command System/Unified Command	2	2	1	-	-	5

Other training topics offered were natural disasters, needs assessment, blood borne pathogens, immunization updates and smallpox. The main reason provided by the nineteen public health agencies in Montana who do not provide training or collaborate to provide training is lack of staff and lack of time.

Table G.9 - Agency Evaluation of Training Offered

Topic	Region 1 n=16	Region 2 n=10	Region 3 n=11	Region 4 n=10	Region 5 n=6	All n=53
Evaluate the training agency offers	1	2	2	2	3	8*
How evaluates training						
Evaluates organizational emergency preparedness response	-	2	-	2	-	4
Evaluates individual emergency preparedness response	-	-	-	1	-	1
How results of evaluation are used						
To revise trainings	-	-	-	2	-	2
Incorporate lessons learned from emergency response drills, simulations, and events	-	2	-	2	-	4
Correct deficiencies to emergency response plan	1	2	-	2	-	5

* of the 48 agencies responding

Assessment of Education and Training (Focus Area G) in Region 4:

Strengths:

The capacity of Montana public health agencies to train and educate staff is mixed. The number of staff in local public health agencies is generally small and there are many barriers to obtaining education. Despite these barriers, agencies report a great deal of support for employee education, including incentives for in-person and distance learning.

- Half of the agencies in the region (5 out of 10 agencies) have staff designated to coordinate training.
- Slightly less than half of public health agencies within the region (4 out of 10 responses) train their own staff.
  - o The most common types of trainings attended within agencies in the region are meetings with community partners and emergency planning committees and continuing education.
- Half of the agencies in the region (5 of 10 agencies) participate in joint trainings with the state public health agencies, LEPCs, or TERCs.
- Almost all agencies in the region allow employees access to the World Wide Web (7 out of 10 agencies) and access to online libraries and databases (7 out of 10 agencies).
- Almost all public health agencies statewide have access to some distance learning technologies. Phone conferencing was the most common technology available. Other common technologies are with computer conferencing, METNET, a satellite downlink, and CD-ROMs.
- The most common trainings received by staff at public health agencies are:
  - o Disease reporting and investigation requirements.
  - o How public health works in the state.

Actions to Consider:

- Work with DPHHS to coordinate training in all agencies and regionally.
- Assign training coordination activities for distance learning and regional trainings. Continue to offer staff incentives to participate in training, especially more paid time to work on homework.
- Create a written office policy that allows staff to attend trainings.
- Designate a portion of the state and local agency budget to pay for registration fees.
- Collaborate with other agencies in area to coordinate distance learning opportunities.
- Designate time to allow staff to participate in training in all regions.
- Develop 24/7 access to satellite downlink and formal agreements for this access.
- Access trainings on:
  - o Specific procedures to follow during biological and chemical incidents.
  - o Basic education regarding biological and chemical incidents.
  - o Infections/syndromes related to critical agent list.
- Conduct an internal training needs assessment in local health agencies.
- Evaluate the training offered by local health agencies.

Summary

Focus Area A

> **Critical Capacity IA**: to establish a process for strategic leadership, direction, coordination, and assessment of activities to ensure state and local readiness, interagency collaboration, and preparedness for bioterrorism, other outbreaks of infectious disease, and other public health threats and emergencies

The presence of collaborative relationships within the jurisdiction (e.g., membership in a local emergency preparedness group, 44 agencies) and with neighboring jurisdictions (e.g., sharing resources and information, 46 agencies) is a strength in most of Montana's local public health agencies and will provide a good foundation for public health emergency preparedness planning. All agencies (53 responding) have a designated lead local public health official, and local health officer, and most (36) have identified a public health emergency preparedness and response coordinator. Providing emergency management training to these public health leaders will ensure effective leadership and direction in public health emergency preparedness and response efforts.

> **Critical Capacity IB**: to conduct integrated assessments of public health system capacities related to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies to aid and improve planning, coordination, and implementation.
>
> **Critical Capacity IIA**: to respond to emergencies caused by bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies through the development and exercise of a comprehensive public health emergency preparedness and response plan.

Most local public health agencies currently have informal agreements with emergency response partners that will serve as a good basis from which to develop formal memoranda of understanding. For the most part, public health emergency response plans are in the early stages of development at the local level. Emergency planning and response regions have recently been identified. The results of this assessment will be useful in the development of both regional and local response plans.

> **Critical Capacity IIB**: to ensure that state, local, and regional preparedness for and response to bioterrorism, other infectious outbreaks, and other public health threats and emergencies are effectively coordinated with federal response assets.
>
> **Critical Capacity IIIA**: to effectively manage the CDC National Pharmaceutical Stockpile (NPS), should it be deployed-- translating NPS plans into firm preparations, periodic testing of NPS preparedness, and periodic training for entities and individuals that are part of NPS preparedness.

Most local public health agencies have not yet developed a plan to integrate the use of other federal response assets [e.g., the National Disaster Medical System, National Pharmaceutical Stockpile (NPS)] into local emergency response plans. The state NPS plan and those few local plans that have been developed will provide useful guidance to other agencies. In smaller counties, it may be most appropriate to pool resources and plan for emergency response at the regional level.

Focus Area B

> **Critical Capacity IA**: to rapidly detect a terrorist event through a highly functioning, mandatory reportable disease surveillance system, as evidenced by ongoing timely and complete reporting by providers and laboratories in a jurisdiction, especially of illnesses and conditions possibly resulting from bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies

Most local public health agencies in Montana have established, or are in the process of establishing, a system to receive notifiable disease reports 24 hours a day, seven days a week (41), assess both the completeness and timeliness of surveillance system reporting (29), and assess and address barriers to reporting (36). As surveillance systems expand and are enhanced to increase their ability to detect a bioterrorism event or other public health emergency, local public health agencies will want to ensure that the appropriate training on disease/illness recognition and reporting is provided to the medical community.

> **Critical Capacity IIA**: to rapidly and effectively investigate and respond to a potential terrorist event as evidenced by a comprehensive and exercised epidemiologic response plan that addresses surge capacity, delivery of mass prophylaxis and immunizations, and pre-event development of specific epidemiologic investigation and response needs.

Montana meets the goal of providing at least one epidemiologist for each Metropolitan Statistical Area (MSA) with a population greater than 500,000, and most agencies have a designated epidemiology contact person to manage outbreak investigations and coordinate activities with state communicable disease control officials (40). Few agencies have developed a plan to address public health surge capacity (23 or fewer, depending on elements of surge capacity addressed). Most agencies have access to food and water risk and vulnerability assessments (36) and can incorporate this information into surveillance and planning efforts.

> **Critical Capacity IIB**: to rapidly and effectively investigate and respond to a potential terrorist event, as evidenced by ongoing effective state and local response to naturally occurring individual cases of urgent public health importance, outbreaks of disease, and emergency public health interventions such as emergency chemoprophylaxis or immunization activities.

In general, disease and outbreak investigation protocols and post-event evaluations are unwritten, informal activities in Montana's local public health agencies, and protocols to enhance surveillance when necessary are in the early stages of development. Creating written protocols will help ensure an efficient and effective response in the event of a public health emergency. Many agencies have some form of relationship with the animal health community and can further strengthen that by involving local veterinarians and animal control in public health emergency preparedness and response planning.

Focus Area C

Critical Capacity A:
To develop and implement a jurisdiction-wide program to provide rapid and effective laboratory services in support of the response to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies.

Laboratory capacity in Montana is in an early stage of development. Only half of the agencies in Montana report knowing that they have access to a Level A laboratory. Almost all agencies know they can contact the state laboratory if their local lab cannot provide the level of service that they need. Few agencies have relationships with their clinical laboratories. In addition, public health agencies have few formal relationships with community partners, such as law enforcements and EMS to ensure proper handling of specimens and communication of results.

Critical Capacity B:
As a member of the Laboratory Response Network (LRN), ensure adequate and secure laboratory facilities, reagents, and equipment to rapidly detect and correctly identify biological agents likely to be used in a bioterrorist incident.

In addition to increasing the familiarity of Montana public health agencies with Level A and other microbiology labs present in their communities, capacity to test for critical agents should be developed. Currently, only one quarter of the microbiology labs reported as available to the counties can rule out the presence of anthrax, brucellosis, tularemia, and plague. The management of specimens is another area in need of attention from public health agencies. Developing a tested specimen transportation system and formal agreements with local partners will ensure needed lab support in an emergency and adherence to chain of custody for criminal evidence.

Focus Area E

> **Critical Capacity A**: to ensure effective communications connectivity among public health departments, healthcare organizations, law enforcement organizations, public officials, and others as evidenced by: a) continuous, high speed connectivity to the Internet; b) routine use of e-mail for notification of alerts and other critical communication; and c) a directory of public health participants (including primary clinical personnel), their roles, and contact information covering all jurisdictions.

Montana's health alert system is in development. Most agencies have a health alert system (32), although few of these currently operate 24 hours a day, seven days a week (11). The development of up-to-date directories with health alert partner contact information is also in the early stages of development. High speed Internet connectivity is present to some extent in most jurisdictions and is completely absent in only 15 counties, representing approximately 7% of the state's population.

> **Critical Capacity B**: to ensure a method of emergency communication for participants in public health emergency response that is fully redundant with e-mail.

Most Montana local public health agencies have redundant communication with e-mail (37), primarily in the form of fax machines. Few agencies (less than 10), however, have formally tested the ability to capacity to reach response partners using these communication systems.

> **Critical Capacity C**: to ensure the ongoing protection of critical data and information systems and capabilities for continuity of operations
>
> **Critical Capacity D**: to ensure secure electronic exchange of clinical, laboratory, environmental, and other public health information in standard formats between the computer systems of public health partners. Achieve this capacity according to the relevant IT Functions and Specifications.

Most local public health agencies in Montana have established basic systems for protecting data and information systems, including the protection of files with patient identifiers from unauthorized access (35), a routine data back-up system (35), and virus protection software (47). Few agencies, however, have vulnerability software (18), written security policies (27 or fewer, depending on policy), or independent validation and verification of security systems (10). Most agencies (34) have initiated the transition of programs to electronic data and messaging systems.

Focus Area F

> **Critical Capacity A:**
> To provide needed health/risk information to the public and key partners during a terrorism event by establishing critical baseline information about the current communication needs and barriers within individual communities, and identifying effective channels of communication for reaching the general public and special populations during public health threats and emergencies.

The capacity of public health agencies in Montana to communicate risk and disseminate health information is in an early stage of development. Not all counties have access to a public information officer. Few agencies have an emergency contact directory or an emergency response/crisis communication plan. Public health agencies throughout the state have high capacity to disseminate information about public health issues through media channels (such as print or TV), letters, town hall meetings, e-mail list-serves, Web sites, and mass distribution through partners (i.e., churches, retailers, restaurants). About half of the agencies have informational materials on reportable conditions, a third have informational materials on critical biological agents and public health threats, and few agencies have informational materials on chemical agents.

Focus Area G

> **Critical Capacity A:**
> To ensure the delivery of appropriate education and training to key public health professionals, infectious disease specialists, emergency department personnel, and other healthcare providers in preparedness for and response to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies, either directly or through the use (where possible) of existing curricula and other sources, including schools of public health and medicine, academic health centers, CDC training networks, and other providers.

The capacity of Montana public health agencies to train/educate their staff is mixed. The number of staff in public health agencies is generally small and there are many barriers to obtaining education. However, agencies offer a great deal of support for employee education, including incentives for in-person training and distance learning. Most agencies need to conduct an internal training needs assessment and evaluate the trainings they offer. Barriers to distance learning mentioned by more than half of the agencies responding include lack of time for staff to devote to distance learning, slow internet connectivity, and lack of satellite receivers. The trainings most needed by most agencies are: 1) Specific procedures to follow during biological and chemical incidents, 2) Basic education regarding biological and chemical incidents, 3) How to identify and recognize a bioterrorism event, 4) Incident Command System/Unified Command, 5) Surveillance- including syndromic surveillance, and 6) Infections/syndromes related to the critical agents lists.

Public Health Emergency Preparedness and Response Planning Regions
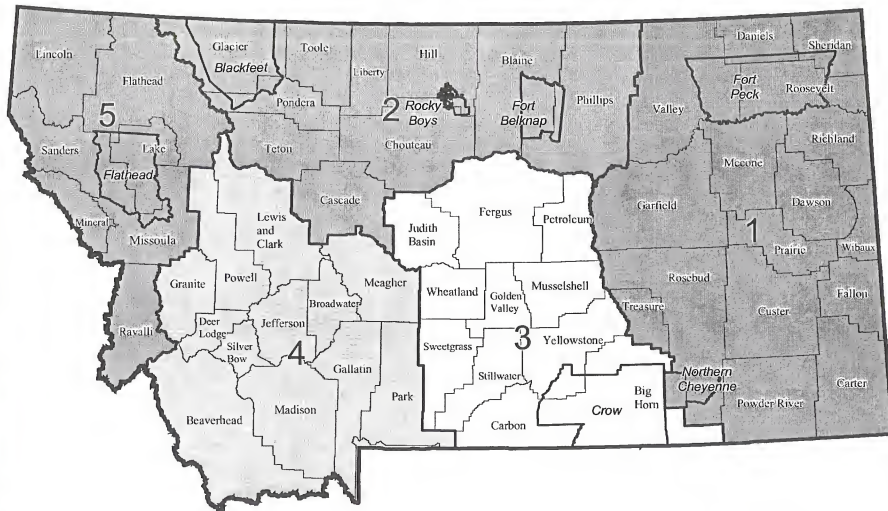
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